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Air

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Government of Canada
Publication

TP 376

1
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synopses
of

AIRCRAFT ACCIDENTS

—civil aircraft in Canada

AVIATION SAFETY INVESTIGATION DIVISION
AVIATION SAFETY BUREAU

Issue 1

1984



SYNOPSIS OF ACCIDENTS

Government
Publications

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The Aviation Safety Investigation Division - an agency of Transport Canada - prepares this publication from preliminary information stored in electronic data processing equipment. This system uses abbreviations and short narratives; a guide to the synopsis form is on the following page.

Your attention is drawn to the fact that the prime intent of this publication is the dissemination of aircraft accident information to promote the prevention of recurrence. Often, interested parties employ this information for purposes other than this, and in doing so, find the information incomplete or delayed. Such persons should be aware that investigations are for the benefit of Government agencies and the aviation community in their attempt to promote aviation safety.

This publication is also available in French.

Cette publication est également disponible en version française.

A limited number of copies of this publication are retained and are available from:

On peut obtenir des exemplaires de la présente publication en nombre limité auprès de l'organisme suivant:

Transport Canada
Aviation Safety Investigation
Aviation Safety Bureau
Transport Canada Building
Ottawa, Ontario
K1A 0N8

Transports Canada
Enquêtes sur la sécurité aérienne
Bureau de la sécurité aérienne
Edifice Transports Canada
Ottawa, Ontario
K1A 0N8

This publication contains synopses of aircraft occurrences in Canada to Canadian and foreign registered aircraft, and Canadian registered aircraft having accidents in foreign countries. Aircraft of Canadian registry having an accident in the United States are reported in a similar document "Aircraft Accident Reports - Brief Format" published by the U.S. Bureau of Aviation Safety of the National Transportation Safety Board. Copies are available from:

U.S. Department of Commerce
National Technical Information Service
Springfield, Va. 22161

EXPLANATORY NOTES

Definition of "Accident"

"Aircraft accident", means an occurrence associated with the operation of an aircraft that takes place between the time the person boards the aircraft with the intention of flight until such time as all persons have disembarked in which:

- (a) any person suffers death or serious injury as a result of being in or upon the aircraft or by direct contact with the aircraft or anything attached thereto; or
- (b) the aircraft receives substantial damage or is destroyed.

(Air Regulations, Part 1, Section 101).

Accident Report Number

This number identifies the occurrence; any queries to Transport Canada should carry this reference. The first letter denotes the Region of responsibility; usually this is the Region of occurrence. The first numeral is the year number in each decade; for example, 1970 appears as a zero, 1971 as 1, and so on. Accidents other than collisions and occurrences to foreign aircraft will be numbered from 001-799 for each year. Accidents involving a collision between two or more aircraft in flight or preparing for flight will be assigned to each aircraft involved. Accidents in Canada to foreign registered aircraft will be assigned numbers from 901-999.

Aircraft Make and Model

The top line of the report contains the type of aircraft involved a brief description of this aircraft, and under "Reg" the registration letters.

Operation

The categories used are those in the Canadian Transport Commission's Directory of Canadian Commercial Air Services.

Damage

One of the definition criteria for "accident" is degree of damage. "Substantial damage means damage or structural failure that adversely affects the structural strength, performance or flight characteristics of an aircraft and that would normally require major repair or replacement of the affected component, except that engine failure, damage limited to an engine, bent fairings or cowlings, dented skin, small punctured holes in the skin or fabric, damage to propeller blades, damage to tires, engine accessories, brakes or wingtips are not deemed to be substantial damage.

(Air Navigation Order, Series VIII, No.1).

Place

Appearing first is the nearest gazetted place followed by the latitude and longitude.

Locale

The pertinent terrain, landing surface, and obstructions. Terrain/airfield altitude is given in feet above sea level (asl). Dimensions are in feet.

Weather

The basic statement includes phenomena at the time and location of the occurrence. Although plain language is used as much as possible some codification may be necessary. The local weather office will be able to answer enquiries on the abbreviations which are too numerous to list here. Sky condition is given in feet above ground, visibility (vis) in miles, temperatures in degrees Celsius unless otherwise noted, wind direction at the nearest cardinal compass point and the windspeed in miles per hour.

Pilot

The licence category is given first, followed by the experience of the pilot-in-command. Blanks signify information not available.

Casualties

Degree of severity is described by the words: killed, serious, minor uninjured (uninj). Individuals are identified as either crew, passengers (pass), or if neither of these two categories, identification of the individual will be given in the narrative. Note that uninjured persons are included in casualties to establish the number of persons involved in the occurrence.

Description of the Occurrence

A brief narrative contains only the elements essential to an understanding of the occurrence, formal assignment of cause(s) is not included.

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82-A20022

Britten Norman BN2A-21

C-GMND

DATE: 20 September 1982, 1700ADT

OPERATION: Specific Point

PLACE: Sable Island, N.S. 43/55N 60/00W

LOCALE: Flat sandy beach area

WEATHER: Wind WSW 7kt, vis 10+, sky clear, temp 18°C.

PILOT: Senior Commercial

TOTAL HOURS: 8620 ALL TYPES 2000 ON TYPE

LAST 90 DAYS: 210 ALL TYPES 100 ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 3 uninj.

OCCURRENCE: The nosegear collapsed at low speed during take-off from a beach area used for an island air service. Despite regular between-flight inspections, and a modification to strengthen the area, the bulkhead to which the nosegear was attached failed because of the cumulative stress from repeated take-offs and landings in soft sand.

82-A20023

Schweizer TSC-1A2

C-GGIA

DATE: 25 September 1982, 1830ADT

OPERATION: Private recreation

PLACE: Ponhook Lake, N.S. 44/19N 064/52W

LOCALE: Lake water area

WEATHER: Vis 15+, sky clear

PILOT: Commercial

TOTAL HOURS: 4221 ALL TYPES 13 ON TYPE

LAST 90 DAYS: 110 ALL TYPES 13 ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj.

OCCURRENCE: The pilot of the amphibious aircraft reported he forgot to retract the landing gear before attempting a water landing. On touchdown, the aircraft nosed over inverted and sank.

82-A20024

Aeronca 7AC

CF-XOV

DATE: 26 September 1982, 1530ADT

OPERATION: Private recreation

PLACE: Concession, N.S. 44/18N 66/05W

LOCALE: Hill and tree-bordered field

WEATHER: Wind light, vis 15+, sky clear

PILOT: Private

TOTAL HOURS: 210 ALL TYPES 130 ON TYPE

LAST 90 DAYS: 8 ALL TYPES 8 ON TYPE

DAMAGE: Destroyed

CASUALTIES: Crew: 1 serious; pass: 1 uninj.

OCCURRENCE: While demonstrating his aircraft to a prospective buyer, the pilot landed in a farm field adjacent to his father's farm. After landing, he found the field was overgrown with 18 in. high vegetation. When he attempted take-off, the tall grass impeded the

aircraft's acceleration and it became airborne after a longer than normal take-off run. He was unable to gain sufficient altitude to clear trees at the end of the field, and while attempting a left turn to avoid them, the left wing collided with a tree; the aircraft swung around 180 degrees and impacted a hill while travelling backwards.

82-A20025

Evans VP-1

C-GMVW

DATE: 11 Oct 1982 1345 ADT

OPERATION: Private recreation

PLACE: near Miscouche PEI 46/27N 63/51W

LOCALE: Rolling tree-bordered field 50' asl

WEATHER: Wind E 11 kt vis 15+ sky clear

PILOT: Private

TOTAL HOURS:	160	ALL TYPES	10	ON TYPE
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LAST 90 DAYS:	8	ALL TYPES	8	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 minor

OCCURRENCE: The pilot of the newly constructed, homebuilt aircraft, reported that during flight, the oil temperature rose past the maximum operating value and engine power decreased. Shortly after, the engine seized and a forced landing was attempted. During the approach to land, the landing gear collided with trees and the aircraft struck the ground, breaking into three sections.

Investigation determined the engine failed due to the seizure of a connecting rod to a crank pin. This probably was caused by the contamination of the engine oil by fine particles from a synthetic cloth that had been in the crankcase. Laboratory analysis found it was possible the material could have been sufficiently pulverized to allow fine particles to pass through the oil filter in suspension, and contribute to improper lubrication.

82-A20027

Bell 212

C-GCHG

DATE: 25 Oct 1982 1240 NDT

OPERATION: State

PLACE: Marticot Island Nfl 47/20N 54/35W

LOCALE: Rocky mountainous area

WEATHER: Wind WSW 34 kt vis 20 cloud 3000' broken temp 1°C

PILOT: Commercial

TOTAL HOURS:	11133	ALL TYPES	992	ON TYPE
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LAST 90 DAYS:	134	ALL TYPES	30	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 2 uninj.

OCCURRENCE: The helicopter was being shut down at a heli-pad on the edge of a steep cliff, overlooking the sea. During the final stage of the power-off wind down, a gust of wind and updrafts caused the main rotor to flap. The retreating blade struck and damaged the tail rotor housing and assembly.

82-A20028

Grob Flugzeugbau

C-GTMX

DATE: 6 Nov 1982 1230 AST

OPERATION: Private - recreation

PLACE: 8000 meters NE of Stanley NS 45/08N 63/50W

LOCALE: Tree-covered swamp area

WEATHER: Wind SW 30 kt vis 15+ cloud 4300'

PILOT: Private and glider

TOTAL HOURS: 50 ALL TYPES 5 ON TYPE

LAST 90 DAYS: 10 ALL TYPES 5 ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj

OCCURRENCE: The sailplane was winch-launched and a circuit flown on the downwind leg. Strong lift was encountered and the pilot climbed to 4000 feet. He carried out a series of manoeuvres and when he experienced a severe sink rate, he decided to return to the airport. The strong wind had carried the sailplane farther from the airport than estimated, so he decided to attempt a forced landing; at about 400 feet, he became aware that the original forced landing field was unsuitable and had to divert to another. While attempting to stretch the glide, the sailplane stalled into a row of trees.

83-A30001

Taylorcraft BC12D

C-FGKS

DATE: 28 Jan 1983 1600 AST

OPERATION: Private recreation

PLACE: Nackawic NB 45/59N 67/14W

LOCALE: Frozen river area

WEATHER: Wind calm vis 15+ sky clear temp 6°C

PILOT: Private

TOTAL HOURS: 139 ALL TYPES 47 ON TYPE

LAST 90 DAYS: 15 ALL TYPES 15 ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj.

OCCURRENCE: The pilot was attempting to start the engine using the hand prop; the engine started but before the pilot could get back into the cockpit, it started to rev up and the aircraft skidded onto the ice surface. It taxied unattended until it hit some trees.

81-C10143

Piper PA23-280

C-GCZA

DATE: 13 November 1981

OPERATION: Charter

PLACE: Missing from Fort Hope to Thunder Bay, Ont.

LOCALE: Tree-covered hills

WEATHER: Vis 15+, sky clear

PILOT: Commercial

TOTAL HOURS: 4770 ALL TYPES 1000 ON TYPE

LAST 90 DAYS: 80 ALL TYPES 18 ON TYPE

DAMAGE: Unknown

CASUALTIES: Crew: 1 fatal

OCCURRENCE: The 200 mile morning flight to Fort Hope to drop off passengers was uneventful. Following a one hour stopover, the pilot took off alone for the return flight to base. The forecast was for continuing fair weather, and the pilot was both experienced as well as familiar with the flight route; however, he failed to reach his destination. An exhaustive search over the rough, tree-covered, lake strewn route failed to locate either the wreckage or the pilot.

81-C10906

Cessna T206

N72212

DATE: 31 August 1981

OPERATION: Private-recreation

PLACE: Unknown (missing aircraft)

LOCALE: Unknown

WEATHER: Unknown

PILOT: Private

TOTAL HOURS:	unknown	ALL TYPES	unknown	ON TYPE
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LAST 90 DAYS:	unknown	ALL TYPES	unknown	ON TYPE
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DAMAGE: Unknown

CASUALTIES: Crew: 1 fatal; pass: 1 fatal (presumed)

OCCURRENCE: The pilot and passenger took-off on a cross-country flight but never arrived at destination. Despite an intensive search, the aircraft and crew were not found.

82-C20073

Piper PA-18

C-FEOT

DATE: 9 Jul 1982 0600 MDT

OPERATION: Private spray

PLACE: 1 mi N of Theodore Sas 51/26N 102/55W

LOCALE: Rolling grass-covered area 1727' asl

WEATHER: Not significant

PILOT: Private

TOTAL HOURS:	3000	ALL TYPES	Unknown	ON TYPE
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LAST 90 DAYS:	40	ALL TYPES	Unknown	ON TYPE
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DAMAGE: Destroyed

CASUALTIES: Crew: 1 fatal

OCCURRENCE: The pilot took off from a country road on a local spray flight. A witness observed the aircraft from take-off until it disappeared behind a stand of trees. Shortly thereafter, a muffled explosion was heard; the witness found the aircraft engulfed in flames, in an adjacent field.

Investigation determined the aircraft struck the ground in a near vertical attitude. There was no evidence of pre-impact structural failure, fire, or control failure.

Examination of the engine determined the number 3 cylinder rocker arm support posts had fractured as a result of the exhaust valve being stuck open due to carbon build-up. The damage to the engine would have resulted in a substantial loss of power.

Investigators concluded that when the engine failed, the pilot probably allowed airspeed to decrease, and the aircraft stalled. The pilot either did not recognize the stalled condition, or was unable to recover in the altitude available. LP 245/82

82-C20088

Bell 206B

C-FJRH

DATE: 29 Jul 1982 1720 PDT

OPERATION: Specialty construction

PLACE: Holman NWT 71/17N 113/47W

LOCALE: Lake in mountainous region

WEATHER: Wind N 17 kt vis 20 cloud 1800' overcast temp 5°C

PILOT: Commercial Rotorcraft

TOTAL HOURS:	1918	ALL TYPES	1620	ON TYPE
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LAST 90 DAYS:	93	ALL TYPES	84	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 1 uninj.

OCCURRENCE: The pilot and maintenance engineer were operating the helicopter from a remote drilling site. On three occasions, there had been engine magnetic chip detector warnings; material removed from the detector was assessed as non-metallic, despite the presence of chrome-like particles. The engine oil and oil filter were changed, but this did not rectify the problem. The pilot and engineer then elected to fly to the nearest telephone to contact the company maintenance department for advice. Enroute, the engine lost power and an autorotative landing carried out.

Investigation determined the number two compressor bearing had failed in a fatigue mode as a result of normal in-service wear (LP 329/82).

82-C20105

Cessna A188B

C-GEEW

DATE: 8 Sep 1982 1015 MDT

OPERATION: Specialty application

PLACE: near Gravelbourg Sas 49/45N 106/27W

LOCALE: Rolling cultivated field 2296' asl

WEATHER: Wind NW 5 kt vis 15 cloud scattered temp 20°C

PILOT: Commercial

TOTAL HOURS:	4000	ALL TYPES	800	ON TYPE
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LAST 90 DAYS:	150	ALL TYPES	150	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 serious

OCCURRENCE: On climb-out from a spray run, the pilot initiated a turn to the left. A few seconds later, a witness saw the aircraft enter a descending turn to the right; it impacted in a left wing down, nose low attitude.

Investigation revealed that the aircraft was mechanically and structurally sound before impact. The pilot remembered little that happened between his initiation of the left turn and his climbing out of the wreckage. He did recall that, at some point, he applied right rudder and pulled back on the control column. It appears that this was his spontaneous reaction to a low-level stall, which occurred either in the left turn or immediately upon levelling out.

The pilot's performance could have been affected by any or all of the following factors. He had little rest the previous night and did not eat breakfast that morning. He flew for three and a quarter hours before the accident, delivering six or seven loads of herbicide. A sample of his blood was tested and showed a trace of the chemical Diquat, but the serum level could not be determined. This chemical, a potent human poison, can enter the body through the skin or by inhalation; the pilot assisted in loading the herbicide and did not use his respirator while flying on the day of the occurrence. A few days before the accident, while he was trying to "blow out" a plugged spray nozzle, his tongue was blistered by contact with the dilute chemical solution.

82-C20106

Schreder HP-14

C-FWZT

DATE: 12 September 1982, 1535CDT

OPERATION: Private recreation

PLACE: Pigeon Lake, Man.

49/48N 97/40W

LOCALE: River water area 800' ASL

WEATHER: Wind S 8 kt, vis 15+, sky clear, temp 15°C.

PILOT: Glider

TOTAL HOURS:	55	ALL TYPES	4	ON TYPE
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LAST 90 DAYS:	22	ALL TYPES	4	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 minor.

OCCURRENCE: The pilot applied forward pressure on the stick to recover from an incipient spin. The aircraft failed to respond when she next applied back pressure, but continued to descend at high airspeed. Unable to rectify the situation, the pilot evacuated the aircraft and parachuted to safety.

The design of the homebuilt aircraft was such that the non-adjustable pilot's seat reclined at a 45° angle. From this position, a pilot who is approximately six feet tall could comfortably adjust all the controls, and have an adequate field of vision. This pilot, being substantially less than six feet tall, added a layer of foam and cushions to the seat structure. From this elevated position, she was able to reach the primary controls but not the glider tow-release lever. In order to overcome this problem, a rope with a plastic handle was permanently installed on the tow-release mechanism, but no provision was made for securing the rope when not in use.

Investigation revealed that the shroud material at the base of the control stick had deteriorated so that, when the stick was moved forward, two holes appeared in the material aft of it. The rope attached to the tow-release lever was long enough to allow the plastic handle to fall through one of these holes where it lodged between the control stick and the aft floor structure, thereby limiting control stick movement. In addition, due to the reclined angle of the seat, the pilot couldn't see the area of the lower control stick and shroud. In-flight determination of the cause of this type of control problem would be difficult.

82-C20107

Piper PA34-200

C-GZTZ

DATE: 15 Sep 1982 1005 CDT

OPERATION: Charter

PLACE: Winnipeg Arpt Man 49/55N 97/14W

LOCALE: Paved taxiway on airport

WEATHER: Wind S 2 kt vis 12 cloud 28000 scattered temp 6°C

PILOT: Commercial

TOTAL HOURS:	1300	ALL TYPES	250	ON TYPE
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LAST 90 DAYS:	Unknown	ALL TYPES	Unknown	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 2 uninj.

OCCURRENCE: After landing, while the aircraft was turning onto a taxiway, the nose gear collapsed. Investigation determined the collapse was the result of failure of the nosewheel trunnion.

Laboratory analysis concluded the trunnion failed in overload after fatigue crack propagation at the left cross tube weldment had sufficiently weakened the assembly. Three fatigue cracks of multiple origin were found at the failure location, and others were found at the right cross tube weldment.

No material or weld deficiencies were found that were contributory to the failure. The location of the pre-cracks suggest that nose gear drag loads were the primary driving force for the fatigue. The aircraft had routinely been operated on unimproved airstrips in remote areas. LP 334/82

82-C20108

Cessna 182N

CF-HLT

DATE: 21 September 1982, 1130MDT

OPERATION: Private recreation

PLACE: Pike Lake, Sas. 51/54N 106/49W

LOCALE: Flat grass-covered area

WEATHER: Wind 10 kt, vis 15+, sky clear

PILOT: Private

TOTAL HOURS:	62	ALL TYPES	7	ON TYPE
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LAST 90 DAYS:	7	ALL TYPES	7	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj.

OCCURRENCE: The pilot was on approach for landing on a stubble field near his home. He commenced round-out at a height of 15-20 feet, power off, with 20° flap. The airspeed decayed, the aircraft stalled and landed heavily on the nose wheel. The nose gear failed; the aircraft came to rest inverted.

Investigation revealed that the pilot had never practiced stalls on the aircraft. He did not have an Owner's Manual for the recently purchased machine and did not know the published stall speeds.

82-C20109

Cessna 185E

CF-TYR

DATE: 21 Sep 1982 1500 CDT

OPERATION: Charter

PLACE: 1 mi N of Bloodvein River Man 51/33N 95/58W

LOCALE: Rolling tree-covered area 1000' agl

WEATHER: Wind SW 10 kt vis 15+ sky clear

PILOT: Commercial

TOTAL HOURS:	7500	ALL TYPES	2000	ON TYPE
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LAST 90 DAYS:	170	ALL TYPES	170	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj.

OCCURRENCE: Shortly after take-off, the engine of the float-equipped aircraft abruptly lost power. The pilot selected the boost pump on and power was restored for about one minute. The engine again lost power, so the pilot carried out a forced landing into trees.

Investigation determined the cause of the problem to be fuel starvation. The fuel selector was in the off position, probably having been inadvertently switched during cargo loading. The pilot was not in the habit of conducting a pre-take-off check, nor was an FMS check completed after the power loss.

82-C20110

Beech B95A

C-GPFS

DATE: 24 September 1982 1138 CDT

OPERATION: Specialty training

PLACE: Regina Sask 50/26N 104/40W

LOCALE: Paved runway 6200' by 200' 1894' asl

WEATHER: Wind E 8 kt vis 15+ sky clear

PILOT: Airline Transport

TOTAL HOURS:	1700	ALL TYPES	50	ON TYPE
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LAST 90 DAYS:	150	ALL TYPES	10	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 2 uninj.

OCCURRENCE: Shortly after touchdown, on a "touch-and-go", the left main landing gear collapsed. The aircraft swerved left off the runway, and came to rest facing 180° to the runway heading. Although the pilot reported the landing gear was indicating down and locked, damage to the left main gear actuating rod indicated that a load had been applied to the gear prior to it being fully extended.

DATE: 8 October 1982 2055 CDT

OPERATION: Private - recreation

PLACE: 4 mi E of Minnedosa Man 50/12N 99/43W

LOCALE: Rolling cultivated area 1675' asl

WEATHER: Wind ENE 8 kt sky overcast partially obscured with drizzle

PILOT: Private

TOTAL HOURS: 760 ALL TYPES 200 ON TYPE

LAST 90 DAYS: Unknown ALL TYPES 102 ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 fatal; pass: 1 serious

OCCURRENCE: The pilot and his his wife were on a night VFR cross-country flight from Priddis, Alta., to Gladstone, Man. He had planned to fly airways to a point 50 miles west of Gladstone, and then follow a prominent highway for the remainder of the flight; a route flown on several previous occasions.

As he neared Brandon, he was forced to descend from his cruising altitude to remain clear of cloud. The Brandon FSS advised him of lower ceilings to the east, and passed the most recent surface weather observations for three aerodromes near the pilot's destination. Brandon (40 miles southwest) was reporting an 800 ft ceiling; Portage (40 miles southeast) was reporting a 1500 ft ceiling, and Dauphin (70 miles northwest) was reporting a 3300 ft ceiling.

The pilot continued, and soon reported he was descending again; a short time later he informed the FSS that he had entered cloud. Within a few minutes, he reported that he was in cloud, at 2500 ft, and requested the elevation of an aerodrome in his vicinity. Brandon advised that the aerodrome elevation was 1840 ft. The pilot responded that he was going to descend further, and then requested the elevation of another aerodrome further east. The elevation (1282 ft) was passed, and he responded that he was now at 2000 feet and still in cloud. No further transmissions from the pilot were heard.

The aircraft was located the next day in a farm field, 25 miles west of Gladstone; it had struck the ground in level, or near level flight, at considerable speed. The landing gear and flaps were up, and engine power apparent. Examination of the wreckage did not reveal any evidence of fire or pre-crash malfunction.

The destination airport does not report surface weather, but residents in the area, and the pilot in his radio transmissions with Brandon FSS, described the weather at the time as below VFR. A weather briefing obtained by the pilot one half hour before departure, had forecasted below VFR weather for the area surrounding destination. The pilot was not IFR qualified, but had often flown at night.

From the evidence examined, investigators concluded that the pilot flew into the ground while attempting to maintain, or regain, visual reference in below VFR conditions.

82-C20113

Piper PA-25

C-GFTP

DATE: 25 October 1982, 1015 MDT

OPERATION: Private - spray

PLACE: 2½ mi W of Birsay, Sask. 51/06N 106/59W

LOCALE: Ditch-bordered road

WEATHER: Wind calm, vis 25+, sky clear, temp 15°C

PILOT: Commercial

TOTAL HOURS: 1350 ALL TYPES 350 ON TYPE

LAST 90 DAYS: 25 ALL TYPES 5 ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj.

OCCURRENCE: The pilot was taking off from a newly constructed country road. He reported he attempted to lift off at too slow an airspeed, stalled, and settled into a ditch beside the road.

82-C20114

Champion 7EC

C-FIRT

DATE: 30 Oct 1982 1450 CDT

OPERATION: Private recreation

PLACE: Souris Man 49/38N 100/12W

LOCALE: Paved runway 2800' by 150' 1480' asl

WEATHER: Wind SSW 15 kt vis 15+ sky clear

PILOT: Private

TOTAL HOURS: 150 ALL TYPES 4 ON TYPE

LAST 90 DAYS: Unknown ALL TYPES 4 ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj.

OCCURRENCE: The pilot reported that during a cross-wind take-off attempt, the left wing lifted and the right wing contacted soft earth. The aircraft left the runway and came to rest inverted.

82-C20115

Curtiss C-46F

C-GIXZ

DATE: 31 Oct 1982 1300 CST

OPERATION: Charter

PLACE: Shamattawa Man 55/52N 92/05W

LOCALE: Rolled gravel runway 4200' by 100' 295' asl

WEATHER: Wind W 10 G 15 kt vis 15 cloud 4000' scattered temp 1°C

PILOT: Airline Transport

TOTAL HOURS: 13000 ALL TYPES 190 ON TYPE

LAST 90 DAYS: 250 ALL TYPES 120 ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 2 uninj.

OCCURRENCE: After the aircraft touched down, the pilot used differential brake in an attempt to maintain directional control in the strong cross-wind. However, approximately 100 yards from the runway turn-off, a swing to the right developed.

The pilot, knowing his brakes were fading and judging that the rate of movement would allow the aircraft to proceed through the taxi-way, decided not to use differential power to arrest the swing. The rate of swing increased to the point where differential power would have been ineffectual. The aircraft departed the runway surface and entered a drainage ditch; the main landing gear struck a galvanized culvert and collapsed.

Winds at the departure aerodrome, 100 miles from destination, were strong and gusting but winds for the destination aerodrome were not available. On arrival, a departing DC-3 reported the surface winds as 80 degrees off runway heading at 15 knots. The aircraft maximum cross-wind component was 90 degrees at 17 knots. After the accident, the crew reported a wind velocity of 12 knots, within aircraft limits.

82-C20116

Cessna 180

CF-JVO

DATE: 5 November 1982 1800 MST

OPERATION: Private business

PLACE: Shellbrook Sas 53/13N 106/22W

LOCALE: Ditch bordered highway

WEATHER: Wind SE 9 kt cloud 8000' overcast temp -17°C

PILOT: Private

TOTAL HOURS:	Unknown	ALL TYPES	Unknown	ON TYPE
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LAST 90 DAYS:	Unknown	ALL TYPES	Unknown	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 1 uninj.

OCCURRENCE: The pilot initiated a power-off descent through 4000 feet, intending to land at a small airfield. The outside air temperature was -17°C. When he next advanced the throttle, on the downwind leg, the engine failed to respond. He tried to glide to the strip but the aircraft touched down hard, short of the prepared landing area. The pilot reported that the winter kit for the engine had not been installed.

82-C20117

Cessna 310R

C-GFJR

DATE: 11 November 1982 1740 CST

OPERATION: Private business

PLACE: Fort Frances Arpt Ont 48/39N 93/26W

LOCALE: Paved runway 4000' by 100' 1122' asl

WEATHER: Wind NW 5 kt vis 8 cloud 800' overcast temp 0°C

PILOT: Commercial

TOTAL HOURS:	3030	ALL TYPES	1165	ON TYPE
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LAST 90 DAYS:	24	ALL TYPES	17	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 2 uninj.

OCCURRENCE: Forty miles from his destination, on a night IFR flight, the pilot was cleared from an enroute altitude of 8000 ft to 3000 ft. He immediately commenced a descent and soon entered cloud. Icing conditions were experienced, and attempts to monitor the extent of the icing proved unsuccessful when the wing inspection light failed. The pilot selected propeller de-ice, and before conducting an NDB approach, he exercised the wing de-ice boots. During the approach he selected windshield de-ice and again exercised the wing boots. Upon regaining VMC, he began a circling procedure to another runway and turned off the windshield de-ice. During the final approach he maintained 105-110 kts and had to adjust his sitting position in order to look out the ice-free portion of the windshield. Approaching the runway, he initiated a flare; the aircraft stalled and touched down 30 ft short of the runway. The landing gear collapsed on impact and the aircraft slid to a stop on its belly.

The pilot reported he had encountered icing conditions on previous flights but had never landed with ice on the airframe. In retrospect, he concluded he should have maintained his approach speed to touchdown.

82-C20118

Aero Commander 100-180

CF-HJO

DATE: 14 November 1982 1445 CST

OPERATION: Private recreation

PLACE: near Evesham Sas 52/27N 109/35W

LOCALE: Farm strip 1800' by 60'

WEATHER: Wind W 4 kt vis 15+ sky clear temp 6°C

PILOT: Private

TOTAL HOURS:	340	ALL TYPES	260	ON TYPE
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LAST 90 DAYS:	12	ALL TYPES	12	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 minor

OCCURRENCE: The pilot, in preparation for a local pleasure flight, used a rope to remove an accumulation of hoar frost from the wings of his aircraft. The leading edges of the wings were clear; however, there was still a substantial amount of frost on the remainder of the wing surfaces when he began his take-off.

Shortly after lift-off, the right wing stalled and the aircraft dropped onto the surface and contacted a snow ridge along the runway edge.

82-C20119

Cessna 172N

C-GYAQ

DATE: 15 November 1982 1430 MST

OPERATION: Specialty training

PLACE: Saskatoon Sask 52/07N 106/38W

LOCALE: Paved parking area on airport

WEATHER: Wind calm vis 15+ sky clear

PILOT: Private
TOTAL HOURS: 233 ALL TYPES 8 ON TYPE
LAST 90 DAYS: 1 ALL TYPES 1 ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj.

OCCURRENCE: The pilot experienced a series of frustrating, unsuccessful starts, involving climbing in and out of the aircraft numerous times to consult with "experts". He finally succeeded in starting the engine by simultaneously tapping on the dash while turning the starter key.

The pilot was caught by surprise as the engine leaped into life. By the time he looked up the aircraft had started to move - his involuntary reaction was to apply more throttle. Parked in close quarters, the aircraft could not be stopped before a wing tip had struck one aircraft and the propeller had chewed the tail from another. Apparently the brakes had not been applied properly during his pre-flight check or had somehow been released during his repeated excursions from the cockpit.

82-C20120

Bellanca 7ECA

C-GMRS

DATE: 16 Nov 1982 1400 CST

OPERATION: Private recreation

PLACE: 10 mi S of Fleming Sas 49/56N 101/31W

LOCALE: Rolling cultivated area 1710 asl

WEATHER: Wind SE 5 kt vis 13 sky clear

PILOT: Private

TOTAL HOURS: 146 ALL TYPES 144 ON TYPE

LAST 90 DAYS: 5 ALL TYPES 5 ON TYPE

DAMAGE: Destroyed

CASUALTIES: Crew: 1 fatal

OCCURRENCE: The pilot was on a short flight to his farm strip, when he was observed flying over his home. He failed to return and the wreckage was located 8 hours later.

The aircraft had impacted the ground while in a steep left turn and shallow descent. The engine was developing considerable power when the left wing contacted a barbed wire fence. The aircraft then cartwheeled and came to rest 120 feet from the point of initial contact.

82-C20121

Cessna A185F

C-GBFT

DATE: 19 Nov 1982 1200 CST

OPERATION: Commercial non-revenue

PLACE: Leaf Rapids, Man 56/30N 99/59W

LOCALE: Gravel runway 3000' by 100' 990' asl

WEATHER: Wind NW 13 kt vis 15 sky overcast temp -10°C

PILOT: Commercial

TOTAL HOURS:	1400	ALL TYPES	700	ON TYPE
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LAST 90 DAYS:	135	ALL TYPES	90	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj.

OCCURRENCE: The pilot stated that after two or three turns, the cold battery would not turn the engine anymore.

Rather than take the time to change batteries, the decision was made to swing the propeller by hand. In preparation, the parking brake was set and the wheels chocked with pieces of 2" x 4". The cabin and controls were unattended. When the engine started, and as the pilot was walking around to enter the machine, the brakes released and the aircraft proceeded across the ramp, down an embankment and into the trees.

82-C20122

Cessna 310R

C-GBIK

DATE: 19 November 1982 2233 MST

OPERATION: Charter

PLACE: Prince Albert Sas 53/13N 105/40W

LOCALE: Paved runway 5000' by 2000' 1405' asl

WEATHER: Wind ENE 14 kt vis 12 cloud 1400' overcast temp -9°C

PILOT: Commercial

TOTAL HOURS:	608	ALL TYPES	64	ON TYPE
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LAST 90 DAYS:	105	ALL TYPES	41	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 2 uninj; pass: 3 uninj.

OCCURRENCE: The IFR flight was to consist of three legs with 2 enroute stops. The first leg was uneventful until severe icing conditions were encountered on final approach. Ice laden, the aircraft exhibited a tendency toward premature stall, which the crew were able to overcome by applying additional power.

After a 5 hour stop-over, during which the aircraft had to be de-iced twice, they departed for the second leg. Freezing drizzle and snow were reported throughout the area. Twenty-five minutes later, on approach to Prince Albert, the city lights appeared distorted through the windshield, alerting the crew to the presence of airframe icing. Alcohol was applied to the windshield, but no indication was given that the other aircraft de-icing systems were activated. On final, the aircraft stalled suddenly and dropped heavily to the runway. Witnesses reported seeing a thick layer of ice on the wings and tail surfaces.

82-C20123

Cessna 180

C-FIXA

DATE: 20 November 1982, 0945 CST

OPERATION: Private - business

PLACE: St François Xavier Man 49/55N 97/40W
 LOCALE: Tree-bordered runway
 WEATHER: Wind NW 19 G 29 kt vis 12 cloud 1700 overcast temp 0°C
 PILOT: Airline Transport
 TOTAL HOURS: 6800 ALL TYPES 600 ON TYPE
 LAST 90 DAYS: 170 ALL TYPES 3 ON TYPE
 DAMAGE: Substantial
 CASUALTIES: Crew: 1 uninj.
 OCCURRENCE: Contrary to recommended flight procedures, an experienced pilot attempted take-off in a 60 degree crosswind reported at 19 gusting 29 knots. At lift-off, he could not compensate for a strong, unexpected gust; the aircraft drifted to the right of the runway where the wing contacted trees. Out of control, the aircraft crashed in a fallow field adjacent to the runway.

82-C20124

Cessna 172K

CF-IZV

DATE: 30 Nov 1982 1215 MST
 OPERATION: Private recreation
 PLACE: Kerrobert Sas 51/55N 109/08W
 LOCALE: Rolling frost-covered area 2300' asl
 WEATHER: Sky broken with variable cloud and freezing fog
 PILOT: Private
 TOTAL HOURS: 360 ALL TYPES 300 ON TYPE
 LAST 90 DAYS: 6 ALL TYPES 6 ON TYPE
 DAMAGE: Substantial
 CASUALTIES: Crew: 1 fatal; pass: 2 fatal
 OCCURRENCE: The pilot and his passengers departed Kerrobert Sask on a VFR flight to Wetaskiwin Alt. Poor weather the previous day had forced them to divert to Kerrobert where they spent the night. Several hours after departure, the aircraft was discovered in a farm field two miles west of the departure airport. The aircraft had impacted the ground in a nose, and right-wing-low attitude. All on board had perished in the crash.

Investigation failed to reveal any evidence of pre-impact failure of the aircraft or engine.

A large area surrounding the accident site had for several days been under the influence of a system causing low ceilings and poor visibility. In addition, heavy frost blanketed the entire area making conditions very conducive to whiteout.

Tire marks in the snow on the runway indicated the pilot had taken off in a westerly direction toward rising terrain. A witness also reported a "wall of cloud" to the west of the airport at the time of departure.

Since the pilot was qualified only for VFR flight, investigators concluded that whiteout conditions encountered shortly after take-off resulted in his disorientation. This probably led to the aircraft entering an attitude from which the pilot was unable to recover.

DATE: 3 Dec 1982 1550 MST

OPERATION: Private business

PLACE: North Battleford Sas 52/47N 108/17W

LOCALE: Rolling cultivated area 1800' asl

WEATHER: Wind ESE 14 kt vis 12 cloud 700' overcast temp -6°C

PILOT: Commercial

TOTAL HOURS: 3700 ALL TYPES 20 ON TYPE

LAST 90 DAYS: 30 ALL TYPES 20 ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 serious; pass: 3 serious

OCCURRENCE: The pilot had just completed a procedure turn on the NDB approach when he reported the left engine lost power. He quickly descended out of cloud, and requested that the alternate air source be pulled on to increase the operating temperature to the intake portion of the engine. Approximately one minute later, the right engine also failed so the pilot carried out a forced landing in a snow-covered field.

Prior to departure, the pilot had added sixty gallons of fuel to the main tanks and determined they were full; however, he did not confirm the quantity in the auxiliary tanks. Approximately thirty minutes prior to the power loss, he selected the auxiliary tanks on. After the engine failure, he made no attempt to select fuel boost pumps on, or to re-select the main tanks as the fuel source.

At the time of the double engine failures the aircraft was in cloud, with light to moderate rime icing being reported. As indicated, the alternate air source was not pulled on until after the first engine failed.

Both fuel switches were selected to the auxiliary tanks; there wasn't any fuel in the left auxiliary tank, and only residual fuel in the right auxiliary tank. Both induction air filters were covered in ice which would have restricted the airflow to the engines.

DATE: 12 Dec 1982 1223 MST

OPERATION: Private - recreation

PLACE: Uranium City Sas 59/34N 108/29W

LOCALE: Asphalt runway 4400' by 100' 820' asl

WEATHER: Wind E 5 kt vis 15 cloud 1500' broken temp -16°C

PILOT: Senior Commercial

TOTAL HOURS: 12000 ALL TYPES 350 ON TYPE

LAST 90 DAYS: 250 ALL TYPES 29 ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj.

OCCURRENCE: After a normal take-off from runway 05, the pilot reduced to climb power and turned the boost pumps off. Approximately 25 seconds later, the left engine failed. The pilot noted the left fuel pressure was almost at zero and selected "high boost", which normally produces 15 to 20 psi - this time the pressure came up to 7 to 8 psi. A few seconds later, smoke and flames billowed from the left engine. The pilot reported the fire to FSS and landed on runway 23. The aircraft rolled or skidded about 1800 feet before stopping, whereupon the pilot escaped and attempted unsuccessfully to put out the fire. Twenty minutes later the fire department arrived and extinguished it.

The pilot, who was also a maintenance engineer, determined that the fuel line from the pump to the carburetor had ruptured due to a broken bracket, causing the engine failure and fire.

82-C20128

Luscombe 8E

CF-PPV

DATE: 27 Oct 1982

OPERATION: Private business

PLACE: 10 mi SE of Wiebenville Ont 52/08N 90/20W

LOCALE: Flat tree-bordered road

WEATHER: Wind SSE vis 15+ sky clear temp 10°C

PILOT: Commercial

TOTAL HOURS:	1116	ALL TYPES	90	ON TYPE
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LAST 90 DAYS:	145	ALL TYPES	89	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 1 uninj.

OCCURRENCE: The pilot miscalculated the fuel required and realized that he would have to make a precautionary landing. After three inspection passes he landed on a road. During the roll-out, the left wing contacted a tree, causing the aircraft to ground loop.

The pilot later commented that flying on wheels over northern terrain requires more care in planning and in-flight monitoring because of the fewer airstrips available. He also felt that he could have chosen a better place to land.

82-C20129

Cessna U206G

C-GGRU

DATE: 30 Dec 1982 1635 MST

OPERATION: Private recreation

PLACE: 8 mi S of Saskatoon Sas 51/54N 106/49W

LOCALE: Flat snow-covered grass runway

WEATHER: Wind calm vis 15+ sky clear temp -8°C

PILOT: Private

TOTAL HOURS:	283	ALL TYPES	206	ON TYPE
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LAST 90 DAYS:	32	ALL TYPES	32	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj.

OCCURRENCE: The pilot was landing at his private farm strip, which had just been plowed. On the latter stages of the approach, he misjudged the end of the strip and touched down about 25 feet short. Because of the snow surface, the aircraft veered to the right, the nose wheel encountered a deep snow-drift, and the aircraft overturned.

82-C20130

Cessna A185F

C-GYHG

DATE: 28 Dec 1982 1530 CST

OPERATION: Private business

PLACE: Pigeon River Man 52/10N 96/50W

LOCALE: Hard compact area

WEATHER: Wind NW 5 kt vis 15+ sky clear temp -10°C

PILOT: Commercial

TOTAL HOURS:	6200	ALL TYPES	1200	ON TYPE
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LAST 90 DAYS:	180	ALL TYPES	Unknown	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 3 uninj.

OCCURRENCE: While turning into wind for take-off, the pilot reported the left gear hit an obstruction and the gear tore out of the attachment area. The pilot could not explain the reason for the failure.

82-C20901

Cessna T210M

N1749M

DATE: 2 Jul 1982, 2205 MDT

OPERATION: International Charter

PLACE: Cree Lake Sas 57/22N 106/50W

LOCALE: Sand and dirt runway

WEATHER: Wind N 5 kt vis 15+ sky clear temp 15°C

PILOT: Airline Transport

TOTAL HOURS:	5300	ALL TYPES	8	ON TYPE
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LAST 90 DAYS:	180	ALL TYPES	8	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 3 uninj.

OCCURRENCE: On June 26 the pilot flew four passengers to Cree Lake. After landing, while taxiing to a parking space, the nose wheel contacted a soft spot, the nose gear was damaged and the prop struck the ground.

Six days later, following aircraft repairs, the pilot was taxiing for take-off when the nose wheel again sank in soft ground and the propeller was damaged.

82-C20902

Cessna A185F

N721

DATE: 12 August 1982 0341 MDT

OPERATION: State

PLACE: Yorkton, Sask. 51/13N 102/28W

LOCALE: Flat cultivated area 1635' asl

WEATHER: Wind SSE 8 kt, vis 12, cloud 4500' scattered, temp 16°C

PILOT: Commercial

TOTAL HOURS:	3000	ALL TYPES	500	ON TYPE
LAST 90 DAYS:	145	ALL TYPES	145	ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 minor

OCCURRENCE: The pilot lost engine power a few miles short of his destination. He executed a forced landing in a wheat field about 2 miles from the airport. The main landing gear became crop-fouled due to the high, damp vegetation causing the aircraft to flip over inverted.

The investigation revealed that the engine failure resulted from fuel exhaustion. From fuel stains and paint deterioration aft of the fuel tank filler caps, it was determined that fuel siphoning had occurred over a prolonged period of time. The pilot testified that the right fuel quantity, when both fuel tanks were selected, decreased more slowly than the left. It was also discovered that the right wing tank fuel gauge indicated three-quarters full when empty.

The aircraft's time in service since the last refuelling would normally have left the pilot with a quantity equivalent to three-quarters of a tank. Since this agreed with the false indication given by the right fuel gauge, the pilot failed to visually confirm his fuel quantity.

Both operational and maintenance personnel had failed to detect the fuel siphoning condition, even though, Airworthiness Directive 79-10-14 - Fuel Tank Venting - and Cessna Owner Advisory SE82-34A draw attention to this problem.

82-C20903

Cessna 172

N7255T

DATE: 3 Sep 1982 1530 CDT

OPERATION: Private recreation

PLACE: Sand Point Lake Ont 48/23N 92/28W

LOCALE: Lake water area

WEATHER: Not significant

PILOT: Unknown

TOTAL HOURS:	Unknown	ALL TYPES	Unknown	ON TYPE
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LAST 90 DAYS:	Unknown	ALL TYPES	Unknown	ON TYPE
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DAMAGE: None

CASUALTIES: Crew: 1 uninj; pass: 2 uninj; other: 1 fatal

OCCURRENCE: After landing, the front seat passenger exited the float-equipped aircraft to assist with the docking. When the engine was shut off, she walked forward into the still-rotating propeller, sustaining fatal injuries.

83-C30001

Beech 99

C-GDSL

DATE: 5 Jan 1983 1200 CST

OPERATION: Charter

PLACE: Stirland Lake Ont 52/20N 91/02W
 LOCALE: Snow-packed ice strip 4000' by 100' 870' asl
 WEATHER: Wind calm vis 15+ sky clear
 PILOT: Airline Transport
 TOTAL HOURS: 11500 ALL TYPES 2000 ON TYPE
 LAST 90 DAYS: 300 ALL TYPES 300 ON TYPE
 DAMAGE: Substantial
 CASUALTIES: Crew: 2 uninj; pass: 8 uninj.
 OCCURRENCE: The aircraft was landed on the ice strip which, from the air, appeared to be serviceable. Shortly after touchdown, the nosewheel dug into soft snow, collapsing the nose gear. The machine dropped onto the nose section and slid 400 feet before stopping.

There was no direct communication capability with the strip. Thus, the third hand information given to the crew indicated the strip had been dragged daily and was considered serviceable.

83-C30003 Cessna 172 C-GEKC

DATE: 13 Jan 1983 1545 MST
 OPERATION: Private recreation
 PLACE: Moose Jaw Sas 50/26N 105/23W
 LOCALE: Paved runway 2953' by 75' 1896' asl
 WEATHER: Wind WNW gusting to 51 kt
 PILOT: Private
 TOTAL HOURS: 108 ALL TYPES 73 ON TYPE
 LAST 90 DAYS: Unknown ALL TYPES 6 ON TYPE
 DAMAGE: Substantial
 CASUALTIES: Crew: 1 uninj; pass: 3 uninj.
 OCCURRENCE: The pilot was flying his mother home to Moose Jaw, intending to land at the municipal airport. One hour before take-off, he phoned for weather and was told the wind was from 300 degrees, at 25 gusting to 29 knots. Approaching destination, he called UNICOM three times without reply, then landed on runway 30. When he turned left onto the taxiway, a gust flipped the aircraft inverted. After the accident 3 people emerged from the office and told the pilot the wind was gusting to 51 knots.

Had he called a nearby military airport prior to landing to obtain the windspeed, he would have realized the wind was too strong and either landed elsewhere, or stopped on the runway and obtained assistance prior to taxiing.

83-C30004 Piper PA-18 C-FSRP

DATE: 17 Jan 1983 1330 CST
 OPERATION: Private recreation
 PLACE: Pickle Lake Ont 51/27N 90/12W
 LOCALE: Snow-covered strip on lake
 WEATHER: Wind N 8 kt vis 15+ sky clear temp -25°C

PILOT: Senior Commercial

TOTAL HOURS:	1090	ALL TYPES	3	ON TYPE
LAST 90 DAYS:	3	ALL TYPES	3	ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 1 uninj.

OCCURRENCE: Because the aircraft was high on final approach, the pilot initiated a side slip. Recovery was not completely effected before touchdown and the aircraft landed heavily on the right ski, then bounced. The pilot applied full throttle for a go-around and, once in cruise flight, asked the crew of another aircraft to visually check the landing gear. After being advised that the right ski was partially folded under the aircraft, he carried out an emergency landing. The damaged ski and gear leg separated during roll-out.

81-Ø10903

Cessna 210L

N64RL

DATE: 8 August 1981, 1345EDT

OPERATION: Private business

PLACE: 6½ miles W of Tilbury, Ont. 42/16N 82/34W

LOCALE: Flat cultivated area 590' ASL

WEATHER: Wind WSW 10 kt, vis 8, cloud 2800' broken, temp 25°C

PILOT: Commercial

TOTAL HOURS:	1636	ALL TYPES	225	ON TYPE
LAST 90 DAYS:	19	ALL TYPES	17	ON TYPE

DAMAGE: Destroyed

CASUALTIES: Crew: 1 fatal; pass: 1 fatal.

OCCURRENCE: The pilot carefully pre-flight planned before departing on a proposed 3 hour IFR flight. During an otherwise routine climb to his 11,000 feet assigned cruising altitude, he made minor authorized diversions around weather. The pilot's in-flight compliance with clearances and good operating procedures in the climb were prudent and proper. Shortly after levelling off at 11,000 feet, the aircraft began an erratic, unauthorized descent that continued until it hit the ground in a steep nose-down, high speed, power on spiral dive.

When ATC noticed the aircraft's unauthorized movements, several attempts were made to contact the pilot. Two unintelligible replies were made by the passenger, who had no aviation training. Investigation revealed no mechanical or structural deficiencies that may have caused the loss of control; weather was also ruled out as a causal factor. Although no useful pathological data was obtained, it is believed the pilot suffered a sudden and complete incapacitation, collapsing forward against the control wheel.

82-Ø20030

Hughes 269-C

C-GETD

DATE: 14 Apr 1982 1210 EST

OPERATION: Specialty training

PLACE: West Port Ont 44/41N 76/24W
LOCALE: Flat grass-covered area 700' asl
WEATHER: Wind NW 9 kt vis 15+ sky clear temp 8°C
PILOT: Student

TOTAL HOURS:	187	ALL TYPES	96	ON TYPE
LAST 90 DAYS:	9	ALL TYPES	3	ON TYPE

DAMAGE: Destroyed

CASUALTIES: Crew: 1 fatal

OCCURRENCE: The helicopter was observed in level flight; it then entered a slight nose-down attitude, which changed to a steep erratic descent. One witness noted that a power reduction preceded the start of the descent. Others heard no sound but saw the aircraft crash in a near vertical descent in an open field.

Examination of the engine and controls failed to reveal any malfunction, and the engine throttle was at idle. The lack of evidence of mechanical failure and the suitability of the area for landing suggests the pilot may have attempted a practice autorotation and failed to coordinate the power reduction with the lowering of the collective control. This would result in a loss of rotor RPM and then loss of control - a condition from which the pilot would be unable to recover.

82-020050

Cessna A185F

C-GFIZ

DATE: 16 Jun 1982 1615 EDT

OPERATION: Private business

PLACE: Constance Lake Ont 49/48N 84/09W

LOCALE: Lake water area 11000' by 5300'

WEATHER: Wind NNW 15 kt vis 15+ cloud scattered temp 15°C

PILOT: Private

TOTAL HOURS:	983	ALL TYPES	11	ON TYPE
LAST 90 DAYS:	45	ALL TYPES	11	ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 1 minor, 2 uninj.

OCCURRENCE: The pilot elected to take-off in a 15 knot crosswind from the left, when a more favourable direction could have been used.

During the take-off run, the pilot could not maintain control and the right wing contacted the water. He corrected; however, the left float strut fitting failed when the float hit the water. The aircraft nosed over and sank.

82-020081

Piper PA28-140

CF-GDE

DATE: 1 Sep 1982 1545 EDT

OPERATION: Private recreation

PLACE: 5 mi N of Beeton Ont 44/10N 79/47W

LOCALE: Road and ditch-bordered field 1000' asl

WEATHER: Wind SE 5 kt vis 5 cloud 2400' broken temp 17°C

PILOT: Airline Transport
 TOTAL HOURS: 6800 ALL TYPES 700 ON TYPE
 LAST 90 DAYS: 60 ALL TYPES 60 ON TYPE
 DAMAGE: Substantial
 CASUALTIES: Crew: 1 minor; pass: 2 minor
 OCCURRENCE: During a flight at cruise power, the pilot reported that the engine lost power and surged erratically at a low RPM; at one point, it almost stopped completely. While executing a forced landing in a large field, the pilot misjudged the approach and touched down short. The aircraft struck a large roadside ditch and bounced over the road into the ditch on the other side.

A thorough run-up of the engine did not reveal the reason for the loss of power.

82-020085 DeHavilland DH82A C-GBBH

DATE: 11 September 1982 1440 EDT
 OPERATION: Private business
 PLACE: Terra Cotta Ont 43/43N 79/56W
 LOCALE: Alfalfa field in hilly area
 WEATHER: Wind SE 8kt, vis 3, sky obscured temp 24°C
 PILOT: Airline Transport
 TOTAL HOURS: 20000 ALL TYPES 500 ON TYPE
 LAST 90 DAYS: 200 ALL TYPES 10 ON TYPE
 DAMAGE: Substantial
 CASUALTIES: Crew: 2 uninj.
 OCCURRENCE: The pilot was returning to base at an altitude of 1000 feet. He reported that a rapid loss of power occurred, then the engine misfired and started emitting black smoke. He made a forced landing in the only available field. On touchdown, a heavy alfalfa growth pulled the aircraft on its nose and it overturned.

A strip down of the carburettor revealed an unidentifiable corrosive substance underneath the float; this had caused the excessively rich mixture and loss of power. No mechanical malfunction could be found with the engine. (LP370/82).

82-020089 Grumman American AA-1B C-GRMQ

DATE: 25 Sep 1982 1427 EDT
 OPERATION: Private test
 PLACE: 6 mi ENE of Ottawa Arpt Ont 45/19N 75/40W
 LOCALE: Flat grass-covered area 374' asl
 WEATHER: Wind E 10 kt vis 7 cloud 2000' broken temp 20°C
 PILOT: Private
 TOTAL HOURS: 537 ALL TYPES 46 ON TYPE
 LAST 90 DAYS: 60 ALL TYPES 46 ON TYPE
 DAMAGE: Substantial
 CASUALTIES: Crew: 1 uninj.

OCCURRENCE: The pilot was conducting a test flight after his aircraft had undergone a 1000 hour inspection and CCI. Ten minutes into the flight, the engine began to run roughly, lost power and emitted harsh metallic sounding noises accompanied by backfiring. He carried out a forced landing on a sod farm, but touched down long and overran the field. The nosewheel failed when the aircraft entered a ditch.

Investigation revealed the #3 cylinder exhaust valve tappet adjusting screw and locknut, had backed out of the tappet, disconnecting the valve from the valve train. The valve rocker clearances had been adjusted as part of the 1000 hour inspection.

82-020090

de Havilland DHC-2

C-FIDF

DATE: 27 Sep 1982 1500 EDT

OPERATION: Private business

PLACE: Anthead Lake Ont 49/58N 80/39W

LOCALE: Lake water area 73' asl

WEATHER: Wind N 10 kt vis 13 cloud 1000' broken

PILOT: Commercial

TOTAL HOURS:	3500	ALL TYPES	2000	ON TYPE
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LAST 90 DAYS:	250	ALL TYPES	230	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 minor

OCCURRENCE: While on final to land on a lake surface, the pilot tried to pump the flaps from the climb to take-off position. He reported that the aircraft dropped rapidly and after landing heavily then bouncing, he recovered with power and made a normal touchdown.

The flap system was found to have a significant hydraulic leak at the flap jack, in both the "flaps up" and "flaps down" position. It is suspected that this deficiency in the flap system contributed to the heavy landing.

82-020091

Breezey RLU-1

C-GFUB

DATE: 30 Sep 1982 1700 EDT

OPERATION: Private training

PLACE: King City Arpt Ont 43/54N 79/34W

LOCALE: Paved runway 1702' by 200' 930' asl

WEATHER: Wind WSW 9 kt vis 15 cloud 38,000' scattered temp 25°C

PILOT: Private

TOTAL HOURS:	118	ALL TYPES	1	ON TYPE
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LAST 90 DAYS:	1	ALL TYPES	1	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj.

OCCURRENCE: The pilot was practising high-speed taxiing in the front seat of the "open air" Breezey in preparation for a check-out. During one of his runs down the active runway, he lifted the nose wheel and the aircraft inadvertently became airborne. Rather than try to land on the short distance remaining, the throttle was opened and the take-off continued.

Two approaches resulted in overshoots as the first was too high, and the second was off to one side of the runway. On the third try, the Breezey landed short, hard, and at an angle to the runway. The right axle broke off as the wheel dug into very soft sand; the aircraft swung 90 degrees, and slid sideways to a stop.

The pilot was properly licensed but not current. There are few visual references to indicate aircraft attitude due to the aircraft's forward seating position. Therefore, he had difficulty controlling the aircraft from his forward vantage point.

A 9 knot crosswind was another contributing factor.

82-020092

Astir 11

C-GFFW

DATE: 2 Oct 1982 1500 EDT

OPERATION: Private recreation

PLACE: Rockton Arpt Ont 43/19N 80/11W

LOCALE: Grass runway 1750' by 200' 846' asl

WEATHER: Wind E 10 kt vis 15+ cloud 2500' scattered temp 14°C

PILOT: Glider

TOTAL HOURS:	90	ALL TYPES	0	ON TYPE
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LAST 90 DAYS:	2	ALL TYPES	0	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 minor

OCCURRENCE: The relatively heavy fibre glass glider was being towed for take-off by a marginally powered aircraft; the wind was reported to be from crosswind to tail wind, and the turf runway was covered with a 4 inch layer of moist grass. As a consequence, the tow aircraft did not accelerate to an acceptable safe airspeed and the pilot rejected the take-off. At this point, the glider was at about 10 feet AGL; the pilot felt the tow rope go slack, and because he could not see the tow aircraft, he turned to the right. The right wing-tip hit the ground and the glider groundlooped.

82-020093

Colonial C-2

C-FUSX

DATE: 3 Oct 1982 1440 EDT

OPERATION: Private recreation

PLACE: Lake Simcoe (Keswick) Ont 44/15N 79/29W

LOCALE: Lake water area

WEATHER: Wind WNW 5 kt vis 6+ cloud 2500' broken temp 18°C

PILOT: Private and Commercial Rotorcraft

TOTAL HOURS:	2700	ALL TYPES	11	ON TYPE
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LAST 90 DAYS:	168	ALL TYPES	2	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 1 uninj.

OCCURRENCE: The pilot was attempting take-off with a near full load of fuel and two passengers. He was unable to get on the step during the first take-off run, so one of the passengers disembarked. On the second try, the aircraft got on the step but struck a wave and prematurely bounced into the air. The pilot attempted to stay airborne, but the aircraft bounced a second time and as the pilot reduced power, he lost control; a wing float dug in, and the machine waterlooped to the left. The occupants donned life jackets and were rescued a short time later. On the tow to shore, the aircraft sank.

At the time the take-off was attempted, water conditions in the area were not suitable for this type aircraft and load.

82-020094

Cesna 180B

C-FLFK

DATE: 2 October 1982 1300 EDT

OPERATION: Private - business

PLACE: Kashagawigamog Lake, Ont. 45/00N 78/36W

LOCALE: Lake water area

WEATHER: Wind SW light and gusty, vis 15+, sky clear

PILOT: Private

TOTAL HOURS:	250	ALL TYPES	73	ON TYPE
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LAST 90 DAYS:	28	ALL TYPES	28	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj.

OCCURRENCE: During a long final approach to land on a lake, the pilot reported encountering gusting crosswinds. While attempting to compensate, he allowed the aircraft to touch down prematurely, dragging a float and a wing tip.

82-020095

Cameron V56

C-FTSH

DATE: 10 October 1982 0930 EDT

OPERATION: Private recreation

PLACE: 3½ mi WSW of Carp Ont 45/19N 76/06W

LOCALE: Flat tree-bordered area

WEATHER: Vis 15+ wind 10 to 12 kt

PILOT: Free Balloon

TOTAL HOURS:	250	ALL TYPES	Unknown	ON TYPE
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LAST 90 DAYS:	19	ALL TYPES	Unknown	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj.

OCCURRENCE: The pilot had landed and disembarked a passenger. After the second take-off, the winds began to increase unfavourably and the pilot decided to discontinue the flight. He attempted to reach an open field for landing, but on the approach the balloon became entangled in some trees.

82-020096

Cessna A185E

C-FYIS

DATE: 17 Oct 1982 1800 EDT

OPERATION: Private recreation

PLACE: Annie Lake Ont 46/11N 81/08W

LOCALE: Water area 5100' by 900' 800' asl

WEATHER: Wind calm vis 25 cloud 25000 broken temp 3°C

PILOT: Private

TOTAL HOURS: 570 ALL TYPES 300 ON TYPE

LAST 90 DAYS: 30 ALL TYPES 30 ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 serious; pass: 1 serious

OCCURRENCE: Shortly after lift-off at between 200/300 feet, the pilot commenced a climbing turn to the right. The pilot reported that while in the turn at about 80 mph, the engine lost power, the aircraft began to shake and he lost control. This turn was performed very steeply, at low altitude and in a confined area.

The aircraft struck some trees along the shoreline in a steep right bank, with a slight nose-down attitude. It came to rest inverted and submerged in 4/6 ft of water. The pilot and passenger evacuated safely.

The engine was taken to an overhaul shop where it was examined. There was no evidence of any pre-impact damage and indications were that high power was being delivered at impact. The aircraft was loaded to within C of G limits and weather was not a factor.

82-020097

Piper PA18-135

C-GDQA

DATE: 26 October 1982 1200 EDT

OPERATION: Private recreation

PLACE: Catfish Lake Ont 48/06N 84/48W

LOCALE: Lake water area

WEATHER: Wind calm vis 15+ sky clear

PILOT: Private (revoked)

TOTAL HOURS: 93 ALL TYPES 18 ON TYPE

LAST 90 DAYS: 17 ALL TYPES 17 ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 1 uninj.

OCCURRENCE: During an attempt to land under glassy water conditions, the aircraft struck the surface of the lake, resulting in the collapse of the float struts. The aircraft nosed over inverted in the water. Both occupants were able to extricate themselves before the wreckage became submerged. The pilot held an invalid licence which had never been endorsed for float operations.

82-020098

Cessna 180H

CF-SQZ

DATE: 27 Oct 1982 1530 EDT

OPERATION: Private recreation

PLACE: Pidgeon Lake Ont 46/45N 81/02W
LOCALE: Lake water area
WEATHER: Wind SSW 8 kt vis 5 cloud 800' obscured temp 9°C
PILOT: Private and Private Rotorcraft
TOTAL HOURS: 1100 ALL TYPES 250 ON TYPE
LAST 90 DAYS: Unknown ALL TYPES Unknown ON TYPE
DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 1 uninj.

OCCURRENCE: The pilot reported an engine failure about 8 minutes after take-off at a cruise altitude of 500-800 feet AGL. He initiated a forced landing in a small lake to his right, but on final approach, the aircraft stalled and struck the surface in a flat mushing attitude; it sank in shallow water at the edge of the lake.

The pilot was flying at this low altitude due to a ceiling of 800 feet and a visibility of 5 miles in fog. The temperature was 9 degrees Celsius, and the dewpoint 8. These weather conditions are extremely conducive to carburettor icing, and the pilot stated that he had not used carb heat during the flight. A functional check of the engine failed to reveal any discrepancies. Therefore, in all likelihood, the engine failure was due to carburettor icing.

82-020099

Piper PA18-135

C-FFFF

DATE: 27 October 1982 1705 EST
OPERATION: Specialty - recreation
PLACE: Partridge Point Ont 46/31N 84/15W
LOCALE: Swamp bordered lake
WEATHER: Wind ESE 7 kt vis 15+ sky clear temp 12°C
PILOT: Private
TOTAL HOURS: 101 ALL TYPES 53 ON TYPE
LAST 90 DAYS: 4 ALL TYPES 4 ON TYPE
DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 1 uninj.

OCCURRENCE: The pilot commenced a power-off descent, through 800 ft, for landing. When he realized he would overshoot the landing area, he advanced the throttle for a go-around. The engine failed to respond. In order to avoid trees beyond the shoreline, the pilot turned the aircraft to the left; it stalled and impacted a swampy area along the north side of the river.

Following the accident, the pilot realized he had attempted to land downwind. On final approach, he did not open the throttle to clear the engine. Weather conditions at the time were conducive to carburettor icing; no application of carburettor heat during the descent was reported.

82-020100

Cessna 172M

C-GGUH

DATE: 18 November 1982 1315 EST

OPERATION: Private training

PLACE: Shelburne Ont 44/05N 80/04W

LOCALE: Grass runway 1250' by 40'

WEATHER: Wind calm vis 15+ sky clear temp 5°C

PILOT: Student

TOTAL HOURS: 46 ALL TYPES 46 ON TYPE

LAST 90 DAYS: 13 ALL TYPES 13 ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj.

OCCURRENCE: The student pilot was practising a short field landing at a small private airstrip. He reported that the wind was calm, he set the flaps at 40 degrees, touched down about 110-150 feet from the threshold at a speed of about 55 knots, and applied brakes about halfway down the runway. The aircraft proceeded to skid the remaining length of the strip, went down a small slope and struck two snowmobiles parked by a hangar.

The grass strip was quite wet from an earlier rainfall. The skid marks showed that the pilot applied heavy braking only 220 ft before the snowmobiles or 1030 ft from the threshold. The aircraft performance chart shows that the full length of the airstrip would have been required for dry conditions. A wet grass strip together with delayed braking, leaving the flaps extended, and landing beyond the threshold, made it impossible to stop on the remaining length available.

His instructor was aware of the intended landing at this strip where conditions were marginal at best, and totally unsuitable on this occasion. He and the student failed to properly assess the suitability of the strip prior to flight.

82-020101

Luscombe 8A

C-FNLG

DATE: 18 November 1982 1330 EST

OPERATION: Private recreation

PLACE: Maple Arpt Ont 43/51N 79/31W

LOCALE: Paved runway 2650' by 44' 770' ASL

WEATHER: Wind E 10 kt vis 11, sky clear temp 8°C

PILOT: Private

TOTAL HOURS: 102 ALL TYPES 16 ON TYPE

LAST 90 DAYS: 16 ALL TYPES 16 ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj;

OCCURRENCE: The pilot completed a normal landing, but as speed decreased, the aircraft began weathercocking. The surface wind was 30 degrees off runway heading at 10 knots.

In an attempt to stay on the runway surface, the pilot added power and corrected the swing. When he again reduced power, the directional control problems returned. Power was again applied but as the aircraft was now approaching the edge of the narrow runway, he reduced it to idle. The pilot did not use differential braking as he was concerned with the possibility of nosing over.

The aircraft left the runway and the right wheel entered a small ditch.

82-020102

Slingsby T.59.D Kestrel

CF-DZV

DATE: 24 Jul 1982 1701 EDT

OPERATION: Private recreation

PLACE: near Rockton Gliderport Ont 43/20N 80/10W

LOCALE: Flat cultivated farm field

WEATHER: Wind S 2 kt vis 15+ cloud 1500 scattered

PILOT: Glider

TOTAL HOURS:	173	ALL TYPES	140	ON TYPE
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LAST 90 DAYS:	9	ALL TYPES	9	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj.

OCCURRENCE: The pilot was returning to the airport after a local VFR flight. He reported that while on a long straight-in approach, he encountered strong downdrafts. Because of excessive loss of height, he elected to make a forced landing about 1 mile short of the runway. The touchdown was smooth, however, thick vegetation caught the left wing tip and caused a flat turn to the left as the glider settled to the ground.

82-020103

Cessna 177

C-FAOA

DATE: 28 Nov 1982 1326 EST

OPERATION: Private - recreation

PLACE: Oshawa Arpt Ont 43/55N 78/54W

LOCALE: Flat compact area on airport

WEATHER: Not significant

PILOT: Private

TOTAL HOURS:	400	ALL TYPES	300	ON TYPE
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LAST 90 DAYS:	Unknown	ALL TYPES	8	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 1 uninj.

OCCURRENCE: The aircraft moved forward and struck another one after it was manually started. The passenger, who had no aviation experience, was holding the brakes.

The pilot stated that he needed a "hand start" due to a low battery. Not able to find anyone qualified to swing the propeller, he set the parking brake and then briefed the passenger sitting in the right front seat, on how to operate the brakes. Nevertheless, when the aircraft started, it moved forward and the passenger could not stop it. The aircraft struck a Cessna 172 which was tied down in the ramp area.

82-020104

SIAI-Marchetti S205-22R

C-FXAJ

DATE: 30 Nov 1982 1645 EST

OPERATION: Private recreation

PLACE: Tottenham Aerodrome Ont 44/01N 79/06W

LOCALE: Grass runway 2700' by 120' 1000' asl

WEATHER: Wind SE 6 kt vis 7 cloud 1500' broken temp 6°C

PILOT: Private

TOTAL HOURS: 678 ALL TYPES 134 ON TYPE

LAST 90 DAYS: 9 ALL TYPES 9 ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 2 uninj.

OCCURRENCE: The right landing gear retracted during roll-out, following a normal touchdown. The aircraft veered off the right side of the runway and rolled down a 3 foot embankment, collapsing the nose gear.

Investigation revealed that the right gear had not locked down properly, as the drag brace failed to geometrically lock over center. This caused the inner control rod end fitting to fail in bending overload during roll-out, allowing the gear to retract. When removed, the control rod was found to be permanently bowed. It could not be positively determined if this condition existed before the occurrence, or was a direct result of forces acting on the rod during the accident. However, an excessively bowed rod would restrict the over center travel in the drag brace, and would account for the failure of the gear to lock in place.

82-020105

Cessna 172K

C-FQDN

DATE: 31 Dec 1982 1100 EST

OPERATION: Commercial non-revenue

PLACE: White Water Lake Ont 46/32N 81/08W

LOCALE: Frozen lake surface

WEATHER: Wind SW 19 kt vis 5 cloud 1500' overcast temp -2°C

PILOT: Private

TOTAL HOURS: 257 ALL TYPES 10 ON TYPE

LAST 90 DAYS: 5 ALL TYPES 1 ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj.

OCCURRENCE: The pilot landed on the ice surface of a lake. While taxiing in poor visibility due to blowing snow, she failed to see a deep pressure crack and the nose gear dropped into it.

82-020107

Piper PA44-180

C-GBGG

DATE: 3 Dec 1982 1604 EST

OPERATION: Specialty training

PLACE: Hamilton Civic Arpt Ont 43/10N 79/56W

LOCALE: Paved runway 6000' by 150' 776' asl

WEATHER: Wind WSW 18 kt vis 12 cloud 3000' scattered temp 20°C

PILOT: Commercial
TOTAL HOURS: 5400 ALL TYPES 20 ON TYPE
LAST 90 DAYS: Unknown ALL TYPES Unknown ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 2 uninj.

OCCURRENCE: After an overshoot, the transit light remained lit following retraction of the gear. When the pilot pressed on the loose gear selector switch, the light flashed on and off. He was satisfied all was safe when three green lights illuminated indicating down and locked; he landed with the wheels retracted.

Investigation showed that terminals of the loose selector switch could ground against the instrument panel and raise the gear.

82-020108 Rockwell Commander 112B C-GOYO

DATE: 4 Dec 1982 1130 EST
OPERATION: Private recreation
PLACE: Grand Bend Arpt Ont 43/17N 81/43W
LOCALE: Paved runway 3100' by 150' 642' asl
WEATHER: Wind N 9 kt vis 10 cloud 5000' overcast temp 9°C

PILOT: Private
TOTAL HOURS: 132 ALL TYPES 19 ON TYPE
LAST 90 DAYS: 7 ALL TYPES 7 ON TYPE
DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 1 uninj.

OCCURRENCE: After start-up, the pilot had difficulty moving the aircraft out of the parking area due to a wet, muddy surface. After resorting to high power, the aircraft was finally taxied onto a paved area. The take-off was uneventful except the gear would not lock up, and on recycling, it would not lock down. The pilot decided to return for a precautionary landing. When the nose wheel touched down, it retracted and the aircraft slid on its nose.

Investigation revealed that the nose actuator shaft had been bent when heavy loads had been imposed on the nose strut during the severe taxi conditions.

82-020901 Piper PA24-250 N6061P

DATE: 2 February 1982 0858 EST
OPERATION: Private business
PLACE: Windsor Arpt Ont 42/16N 82/58W
LOCALE: Snow-covered area short of runway
WEATHER: Wind NNE 6 kt vis 7 cloud 20,000 overcast temp -11°C

PILOT: Commercial
TOTAL HOURS: 425 ALL TYPES 425 ON TYPE
LAST 90 DAYS: 24 ALL TYPES 24 ON TYPE
DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 2 uninj.

OCCURRENCE: The pilot was on an IFR flight plan from Indiana to Detroit. On arrival the aircraft was handed off to approach control, received a clearance, and started descent to Detroit City Airport.

On the pre-landing check, the fuel selector had been moved from the right to left tank. A short time later, the engine lost power. The pilot performed the emergency check list, including application of carb heat, and switched tanks again. The engine ran for a few seconds and then quit.

After declaring an emergency to Detroit control, they advised he was closer to Windsor Airport and to attempt landing there. The pilot had Windsor in sight, acknowledged the information and switched to Windsor Tower. The aircraft was cleared for a straight in on runway 07; it landed 10/15 feet short of the runway.

The aircraft had been stored for 7 weeks with one tank partially filled. It was this tank which the pilot selected shortly before the engine failed. Examination revealed a substantial accumulation of water in the fuel pumps and carburettor.

82-020903

Cessna 177RG

N20AV

DATE: 30 September 1982 1030 EDT

OPERATION: Private recreation

PLACE: Gogama Ont 47/41N 81/42W

LOCALE: Grass strip 1500' by 200' 1175' asl

WEATHER: Wind W 4 kt vis 6 cloud 8000' scattered temp 13°C

PILOT: Commercial

TOTAL HOURS:	1100	ALL TYPES	50	ON TYPE
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LAST 90 DAYS:	13	ALL TYPES	5	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 2 uninj.

OCCURRENCE: The pilot reported that he landed long to avoid soft spots on the runway. On the roll-out, he overran the strip and the left gear collapsed after hitting a hard mound of earth. The aircraft came to rest on the left wing tip.

83-030001

Mustang 2/3 P51D

C-GBRG

DATE: 1 Jan 1983 1100 EST

OPERATION: Private recreation

PLACE: Brampton Arpt Ont 43/46N 79/53W

LOCALE: Paved runway 1962' by 40' 900' asl

WEATHER: Wind WSW 14 kt vis 20 cloud 2500' scattered temp 1°C

PILOT: Private

TOTAL HOURS:	400	ALL TYPES	5	ON TYPE
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LAST 90 DAYS:	0	ALL TYPES	0	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj.

OCCURRENCE: The pilot intended to carry out a short local flight in his homebuilt aircraft. After flying a circuit, he approached slightly faster than normal. Touchdown was rather hard and the aircraft bounced, so he applied full power, but it settled and bounced again. The left gear failed in overload, resulting in a swerve which caused the right gear to fail. The aircraft came to rest at the edge of the runway.

The pilot had flown the aircraft only 5 hours, the last time 3 months previously. Also he had little tail wheel experience, so he could not be considered current. The single-seat design makes dual instruction impossible, and the long, high nose makes it difficult to see the runway while landing. The pilot normally stalled the aircraft on a "three-point" landing, but excess speed on this occasion resulted in the hard landing and bounce.

83-030002

Cessna 150

CF-LGU

DATE: 9 Jan 1983 1446 EST

OPERATION: Private business

PLACE: Azilda Ont 46/34N 81/07W

LOCALE: Flat swampy area 890' asl

WEATHER: Wind SE 8 kt vis 4 cloud 1500' overcast temp -8°C

PILOT: Private

TOTAL HOURS:	390	ALL TYPES	131	ON TYPE
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LAST 90 DAYS:	30	ALL TYPES	4	ON TYPE
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DAMAGE: Destroyed

CASUALTIES: Crew: 1 serious

OCCURRENCE: The pilot removed snow and ice from the wings and windshield, visually checked the fuel quantity, drained fuel from the gascolator, and completed a run-up before departing for a circuit check. On climb-out, at 250-300 ft AGL, the engine stopped suddenly with a loud bang. The pilot initiated a left turn to avoid houses ahead, and landed on a soft bog-like surface. The aircraft stopped abruptly then flipped inverted causing the pilot, who was not wearing a shoulder harness, to strike his head on the instrument panel.

The aircraft had been left parked on the ramp for four months, with the fuel tanks half empty. During that time, the fuel was subjected to numerous temperature fluctuations, and conditions on the day of occurrence were ideal for the formation of ice crystals. The temperature was above freezing when the wreckage was examined. No fuel was present in the lines or carburettor, and $\frac{3}{4}$ of an inch of water was found in the gascolator.

83-030003

Cessna 150M

C-GURC

DATE: 9 Jan 1983 1205 EST

OPERATION: Flying Club training

PLACE: Ottawa Int'l Arpt Ont 45/19N 75/40W
LOCALE: 75' wide taxiway on airport 374' asl
WEATHER: Wind ENE 10 kt vis 25 sky clear temp -13°C

PILOT: Commercial

TOTAL HOURS:	2161	ALL TYPES	1597	ON TYPE
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LAST 90 DAYS:	130	ALL TYPES	102	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 2 uninj.

OCCURRENCE: During climb-out, at approximately 150 ft AGL, the engine lost all power. The instructor turned the aircraft back toward the airport, and landed on the edge of a ramp parallel to the runway. The aircraft skidded across the icy ramp and collided with a chain link fence.

Investigation determined the engine failure was likely the result of fuel starvation. This was caused by ice in the fuel selector obstructing fuel flow. The operator's practice of hangingar the aircraft nightly, was conducive to water condensation in fuel tanks. Ice inhibitor was not used, nor was there a fuel drain for removing water from the selector.

83-030004

Aeronca 11BC

C-GLDT

DATE: 20 Jan 1983 1710 EST

OPERATION: Private recreation

PLACE: Markham Arpt Ont 43/56N 79/16W

LOCALE: Paved runway 2800' by 75' 807' asl

WEATHER: Wind calm vis 8 sky clear temp -6°C

PILOT: Private

TOTAL HOURS:	170	ALL TYPES	57	ON TYPE
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LAST 90 DAYS:	15	ALL TYPES	15	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 1 uninj.

OCCURRENCE: The pilot reported that the aircraft veered to the left during the landing roll. He applied right rudder and increased power, but was unable to regain directional control. The right main gear collapsed; the propeller and right wing tip contacted the ground.

83-030006

Piper PA38-112

C-GPQI

DATE: 19 Feb 1983 1115 EST

OPERATION: Specialty training

PLACE: Lindsay Arpt Ont 44/22N 78/47W

LOCALE: Sand runway 3000' by 75' 882' asl

WEATHER: Wind SW 5 kt vis 5 cloud 1200' broken temp 1°C

PILOT: Commercial

TOTAL HOURS:	2467	ALL TYPES	800	ON TYPE
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LAST 90 DAYS:	60	ALL TYPES	60	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 2 uninj.

OCCURRENCE: The instructor reported that during the take-off roll, the student overcorrected when the aircraft swung to the left. Although the instructor took control, a main wheel struck a snowbank off the side of the runway; the aircraft came to rest on its nose beside the runway.

83-030012

Saunders ST-27-100

C-FHMQ

DATE: 8 Mar 1983 0840 EST

OPERATION: Commercial non-revenue

PLACE: Peterborough Arpt Ont 44/19N 78/22W

LOCALE: Paved runway 5000' by 100' 628' asl

WEATHER: Wind ENE 6 kt vis 12 cloud 1100' overcast temp 4°C

PILOT: Airline Transport

TOTAL HOURS:	9000	ALL TYPES	4000	ON TYPE
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LAST 90 DAYS:	120	ALL TYPES	100	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 3 uninj.

OCCURRENCE: The instructor was conducting dual training circuits in preparation for a type endorsement flight test. On downwind, he simulated a right engine failure, and the student completed the required procedure. The gear warning horn was muted when the right throttle was retarded and did not actuate again.

The approach was continued to touchdown, with no attempt made to lower the gear. The instructor reported that the final landing check-list was not used.

83-030013

Cessna 172F

C-FRVW

DATE: 13 Mar 1983 1110 EST

OPERATION: Private recreation

PLACE: Wyoming Arpt Ont 42/08N 82/08W

LOCALE: Flat compacted runway

WEATHER: Wind N 5 kt vis 10 sky clear temp 3°C

PILOT: Private

TOTAL HOURS:	110	ALL TYPES	45	ON TYPE
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LAST 90 DAYS:	1	ALL TYPES	1	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj.

OCCURRENCE: Following a long landing, the pilot attempted a go-around with full flap extended and carburettor heat on. The aircraft failed to become airborne; it struck a fence and two ditches before coming to rest.

The pilot stated that the aircraft floated after the landing flare, and he became preoccupied with landing it. He failed to realize that insufficient clearance remained to safely complete a go-around with full flap extended and the carburettor heat on.

81-P10906

Bell 47G3B2

N8198J

DATE: 28 July 1981, 1840 PDT

OPERATION: Private business

PLACE: Robb Lake, B.C. 56/55N 123/35W

LOCALE: Rocky creek bed 4400' ASL

WEATHER: Wind E 5 kt, vis 15+, sky clear, temp 18°C

PILOT: Commercial

TOTAL HOURS: 4500 ALL TYPES 2000 ON TYPE

LAST 90 DAYS: 700 ALL TYPES 220 ON TYPE

DAAMGE: Substantial

CASUALTIES: Crew: 1 uninj.

OCCURRENCE: Shortly after lifting off with a slung load, the engine flamed out. The pilot initiated autorotation, jettisoned the load and selected an emergency landing site. On flare at touchdown, the tail rotor struck the ground and was torn off.

Although the pilot was monitoring his helicopter's fuel state by using the fuel gauges and timing, it is probable that the engine flameout resulted from fuel starvation caused by a low fuel state and aircraft nose down attitude.

82-P20004

Hughes 500D

C-GQCA

DATE: 22 Jan 1982 1202 PST

OPERATION: Charter

PLACE: Lyell Island BC 52/41N 131/31W

LOCALE: Loose floating log boom at sea level

WEATHER: Wind light vis 2 cloud 1000' obscured temp -5°C

PILOT: Commercial

TOTAL HOURS: 7063 ALL TYPES 204 ON TYPE

LAST 90 DAYS: 106 ALL TYPES 13 ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 fatal; pass: 2 fatal

OCCURRENCE: Following take-off in marginal VFR conditions, with falling snow, the pilot apparently experienced a sudden loss of power. The helicopter descended out of control and crashed on its port side atop a loose bundle of logs in a booming ground.

Either following, or at impact, the helicopter exploded and burned vigorously before rolling off the logs and sinking in the bay.

An extensive technical investigation was carried out, but no reason for the power failure could be found.

82-P20010

Piper PA-14

C-FLRL

DATE: 15 February 1982 1555 PST

OPERATION: Private - recreation

PLACE: Needles, B.C. 49/59N 118/18W
 LOCALE: Snow-covered mountains 3000' asl
 WEATHER: Sky overcast with rain and fog
 PILOT: Private
 TOTAL HOURS: 525 ALL TYPES 472 ON TYPE
 LAST 90 DAYS: 9 ALL TYPES 9 ON TYPE
 DAMAGE: Substantial
 CASUALTIES: Crew: 1 fatal

OCCURRENCE: The pilot left Kamloops on a VFR flight to Nelson, B.C. The aircraft failed to arrive, and was located the next day 20 km NW of Needles, B.C. Evidence at the crash site indicated the aircraft clipped some small trees, stalled, and struck the snow-covered slope in a steep, nose-down attitude. It was determined the engine was operating at high power.

The pilot had spent his first weekend home since his recent transfer to Nelson. He was to have been at work Monday morning, but his departure was delayed because of poor weather at Kamloops. On several occasions during the morning, he was briefed by telephone on the weather over the route: Kamloops - Kelowna - Castlegar. On all occasions, conditions remained below VFR with freezing rain or mixed rain and snow along the route. The pilot twice requested the weather sequences for Northern Washington. These stations were reporting significantly better conditions. Early in the afternoon he arrived at the weather office, and was told that the weather at Kelowna and Penticton had improved but conditions at Castlegar (the closest weather station to Nelson) remained below VFR. He again requested the hourly reports from Northern Washington and stated that he "had better go that way".

He flight-planned a southern route to Nelson, via Kamloops - Penticton - Grand Forks - Nelson. However, once airborne, he apparently decided to proceed to Nelson by the shorter direct route. He informed Penticton FSS over Vernon, that he was proceeding to Nelson via the Monashee Pass. He was given the Castlegar weather: a ceiling of 3200 feet with a visibility of 3/4 mile. The Pacific Weather Centre reported that since the Monashee Pass is about 3000 feet higher than Castlegar, it is likely that a cloud deck was extending almost to the ground in that area with very restricted visibilities in fog and rain. This was later substantiated by witness statements.

The aircraft was seen to be flying at a low altitude, and appeared to be following the highway. As the pass in the accident area becomes narrower, and the highway climbs with the terrain, it may be concluded that the pilot lost all visual reference and was unable to maintain ground clearance. He was well aware of the weather conditions along the route, but decided to proceed to a destination which was reporting below VFR; he also took a direct, instead of the safer flight-planned route. It is likely that his decision was influenced by his being late to report for his new job.

82-P20015

Cessna 150M

C-GSAY

DATE: 19 March 1982 1423 PST

OPERATION: Specialty-training

PLACE: Smithers Arpt, B.C. 54/25N 124/15W

LOCALE: Paved runway 5000' by 150', 1717' asl

WEATHER: Wind calm, vis 25, cloud 25000 broken, temp 3°C

PILOT: Student

TOTAL HOURS: 17 ALL TYPES 17 ON TYPE

LAST 90 DAYS: 17 ALL TYPES 17 ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj.

OCCURRENCE: During final approach the aircraft developed a high sink rate. Full flaps were selected and power was at idle. The student pilot misjudged the rate of descent and allowed the aircraft to strike a snowbank short of the threshold. The aircraft struck the runway heavily and the nose landing gear collapsed.

82-P20016

Cessna 172A

CF-LYI

DATE: 20 Mar 1982 1030 PST

OPERATION: Private training

PLACE: Duncan Arpt BC 48/45N 123/43W

LOCALE: Gravel runway 1600' by 75' 310' asl

WEATHER: Wind light vis 15+ sky clear

PILOT: Student

TOTAL HOURS: 60 ALL TYPES 60 ON TYPE

LAST 90 DAYS: 25 ALL TYPES 25 ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj.

OCCURRENCE: The aircraft nose wheel struck the runway on touchdown. The aircraft bounced into the air, and the nose wheel hit the gravel surface several times until it finally collapsed.

82-P20019

Cessna 177

C-FWBZ

DATE: 27 Mar 1982 2058 PST

OPERATION: Specialty training

PLACE: Penticton Arpt BC 49/28N 119/36W

LOCALE: Paved runway 6000' by 200' 1129' asl

WEATHER: Wind N 8 kt vis 15+ cloud 6000' broken temp 5°C

PILOT: Private

TOTAL HOURS: 569 ALL TYPES 16 ON TYPE

LAST 90 DAYS: 0 ALL TYPES 0 ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 2 uninj.

OCCURRENCE: The pilot stated that as the nose touched the runway, a loud bang was heard; the nose was raised, and as it touched again there were scraping sounds and sparks.

The nose-wheel fork failed from overload. No pre-existing damage was found that could have contributed to the failure. The tire and tube had also ruptured. It could not be determined whether the nose-wheel fork or the tire failed first. (LP 193/82)

82-P20023

Quickie

C-GRBQ

DATE: 7 April 1982 1330 PST

OPERATION: Private testing

PLACE: Abbotsford Arpt., B.C. 49/02N 122/22W

LOCALE: Flat cultivated area 190' asl

WEATHER: Wind N 11 kt, vis 15+, sky clear, temp 10°C

PILOT: Private

TOTAL HOURS:	110	ALL TYPES	1	ON TYPE
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LAST 90 DAYS:	10	ALL TYPES	1	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj

OCCURRENCE: Shortly after take-off, the engine RPM dropped from 3200 to 2500, and the pilot made a forced landing in a raspberry field. Inspection of the aircraft's fuel system found two grains of sand lodged between the carburetor needle valve and its seat. This resulted in an overly rich fuel/air mixture being supplied to the engine, which in turn caused the power loss.

82-P20024

Piper PA18-135

C-GIXB

DATE: 11 Apr 1982 1045 PST

OPERATION: Private business

PLACE: Dog Creek Airstrip BC 51/38N 122/15W

LOCALE: Snow-covered airstrip

WEATHER: Wind calm vis 15+ cloud 10000 overcast temp -6°C

PILOT: Commercial

TOTAL HOURS:	2500	ALL TYPES	25	ON TYPE
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LAST 90 DAYS:	100	ALL TYPES	5	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 1 uninj.

OCCURRENCE: The aircraft landed on an unattended snow-covered airstrip. During the landing roll, the wheels broke through the snow crust and the aircraft overturned.

82-P20026

Thunderbird

CF-MBR

DATE: 23 April 1982 1442 PST

OPERATION: Private - recreation

PLACE: Princeton B.C. 49/28N 120/31W

LOCALE: Paved runway 3934' by 75', 2298' asl

WEATHER: Wind W 30 kt, vis 15+, sky clear

PILOT: Student
 TOTAL HOURS: 66 ALL TYPES 27 ON TYPE
 LAST 90 DAYS: 1 ALL TYPES 1 ON TYPE
 DAMAGE: Substantial
 CASUALTIES: Crew: 1 uninj;
 OCCURRENCE: While landing in strong gusting crosswinds, the student pilot lost control when a gust of wind lifted the right wing. The aircraft groundlooped, the left main landing gear collapsed, and the aircraft came to rest on its left wing tip. At the time of the occurrence, the crosswind component was well in excess of the pilot's and aircraft's capabilities.

82-P20035 Taylorcraft BC12D C-FGYI

DATE: 17 June 1982, 1950PDT
 OPERATION: Private recreation
 PLACE: Francois Lake, B.C. 53/57N 125/30W
 LOCALE: Lake water area 2345' ASL
 WEATHER: Wind calm, vis 15+, sky clear
 PILOT: Student
 TOTAL HOURS: 17 ALL TYPES unknown ON TYPE
 LAST 90 DAYS: 17 ALL TYPES unknown ON TYPE
 DAMAGE: Substantial
 CASUALTIES: Crew: 1 fatal; pass: 1 fatal.
 OCCURRENCE: The student was on a local sightseeing trip when he was observed at about 400 feet above a large lake. He entered a turn to the right in a nose-high attitude, and went into a spin which continued to impact. The student had received his training on a different kind of aircraft (C152). His logbook showed 14 hours dual and 2 hours solo.

82-P20039 Cessna 172-RG C-GAYJ

DATE: 19 Jul 1982 1730 PDT
 OPERATION: Specialty recreation
 PLACE: 100 Mile House BC 51/39N 121/18W
 LOCALE: Flat grass-covered swamp
 WEATHER: Wind calm vis 15 cloud 8000' scattered temp 20°C
 PILOT: Private
 TOTAL HOURS: 75 ALL TYPES 4 ON TYPE
 LAST 90 DAYS: 28 ALL TYPES 4 ON TYPE
 DAMAGE: Substantial
 CASUALTIES: Crew: 1 uninj; pass: 3 uninj.
 OCCURRENCE: The aircraft failed to gain altitude after lift off so the nose was lowered and the gear retracted. The nose was raised again but the aircraft continued to lose altitude. A forced landing was carried out in a swamp.

Extensive investigation showed only one significant factor besides pilot inexperience on type; the pilot did not follow the instructions listed in the short field take-off distance chart which read "Prior to take-off from fields above 3000 feet elevation, the mixture should be leaned to give maximum power on a full throttle static run-up". The elevation of the paved strip was slightly over 3000 feet.

82-P20040

Cessna 172M

C-GHKV

DATE: 24 June 1982 0630 PDT

OPERATION: Private - recreation

PLACE: Meadowgreen, B.C. 50/28N 120/41W

LOCALE: Grass strip 2700'

WEATHER: Wind calm, vis 15+, sky clear, temp 4°C

PILOT: Private

TOTAL HOURS: 154 ALL TYPES 73 ON TYPE

LAST 90 DAYS: 16 ALL TYPES 16 ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 2 uninj.

OCCURRENCE: The pilot decided to abort his take-off when the aircraft did not accelerate properly. He was unable to stop before it left the end of the runway; it collided with a fence and nosed over, inverted. The gravel strip was overgrown with dew-laden, slippery grass which hindered the aircraft's acceleration. The pilot's decision to abort came too late given the condition and length of the remaining runway.

82-P20045

Cessna 206

C-FRKA

DATE: 23 July 1982 1230 PDT

OPERATION: Private - business

PLACE: Bella Bella, B.C. 52/08N 128/04W

LOCALE: Gravel runway 1500' by 50', 100' asl

WEATHER: Wind NW 5 kt, vis 15+, cloud 3000' broken, temp 25°C

PILOT: Private

TOTAL HOURS: 53 ALL TYPES 10 ON TYPE

LAST 90 DAYS: 15 ALL TYPES 5 ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 4 uninj.

OCCURRENCE: The pilot attempted a short field landing. In attempting to touch down on the button of the runway, he misjudged his altitude and struck a pile of rocks short of the runway. The right wheel was torn off and the gear leg bent backwards. The aircraft came to rest off the right side of the runway.

82-P20046

Piper PA24-250

C-FPYU

DATE: 24 Jul 1982 1330 PDT

OPERATION: Private business

PLACE: Kalamalka Lake BC 50/11N 119/19W

LOCALE: Lake water area 1284' asl

WEATHER: Wind W 4 kt vis 15 cloud 6000' scattered temp 24°C

PILOT: Private

TOTAL HOURS: 1074 ALL TYPES 700 ON TYPE

LAST 90 DAYS: Unknown ALL TYPES Unknown ON TYPE

DAMAGE: Destroyed

CASUALTIES: Crew: 1 fatal

OCCURRENCE: The aircraft was making a high speed, low level pass, parallel to the lakeshore. While pulling up in a steep left climbing turn, the right wing separated, the aircraft impacted the water and was destroyed. The pilot and sole occupant died in the crash.

It was determined that the right wing separated in flight due to fatigue failure of the lower main spar cap; the fatigue initiated at a rivet hole on the trailing edge of the spar cap. A similar crack was found on the left wing and a fatigue crack was also found in the main spar upper attachment plate. No specific cause of crack initiation could be identified, and no material or manufacturing defects or deficiencies were found to be associated with any of the cracks.

As a result of this investigation, the U.S. Federal Aviation Administration, has issued an Engineering Airworthiness Directive (number 82-19-01) which should prevent the possibility of catastrophic wing failure associated with fatigue damage occurring in wing main spar lower caps, and upper main spar attachment plates. (LP 269/82)

82-P20047

Pezetel SZD 48-1

C-GXPT

DATE: 25 July 1982 1825 PDT

OPERATION: Private - training

PLACE: Hope Mountain, B.C.

LOCALE: Tree-covered mountains 2750' asl

WEATHER: Wind NNE 7 kt, vis 15+, cloud 6000' SCT, temp 29°C

PILOT: Private and glider

TOTAL HOURS:	578	ALL TYPES	30	ON TYPE
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LAST 90 DAYS:	69	ALL TYPES	15	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 minor

OCCURRENCE: The pilot was ridge-soaring near the side of a mountain. While trying to avoid an area of turbulent air, he increased his angle of bank such that a high speed stall occurred, and the sailplane entered a spin. The pilot reported he was slow in employing the correct spin recovery technique, and although rotation had stopped, the aircraft struck the ground before the recovery could be completed.

82-P20048

Bell 47G2

C-FKNQ

DATE: 30 Jul 1982 1310 PDT

OPERATION: Charter

PLACE: Victoria, BC 48/29N 123/20W

LOCALE: Flat grass-covered area 200' asl

WEATHER: Wind light vis 15+ cloud 6000' broken temp 17°C

PILOT: Commercial

TOTAL HOURS:	700	ALL TYPES	139	ON TYPE
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LAST 90 DAYS:	87	ALL TYPES	87	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 2 uninj.

OCCURRENCE: During descent with the carburettor heat in the cold position, the engine failed to respond when level-off was attempted. The pilot carried out an autorotation into a small field; a hard landing resulted which broke the tail boom.

A run-up test revealed the engine was operating satisfactorily at all power settings.

82-P20050

Cessna 180H

C-FRVY

DATE: 3 Aug 1982 1600 PDT

OPERATION: Private business

PLACE: Kawkawa Lake BC 49/23N 120/24W

LOCALE: Tree-bordered lake 4500' by 2700'

WEATHER: Wind WNW 8 kt vis 15 cloud 8000' broken temp 17°C

PILOT: Private

TOTAL HOURS:	1500	ALL TYPES	1000	ON TYPE
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LAST 90 DAYS:	Unknown	ALL TYPES	Unknown	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 1 uninj.

OCCURRENCE: The pilot stated that he had a reduction in power shortly after take-off. He attempted to turn back, but stalled in the turn and crashed into the lake.

No technical investigation was performed to determine the cause of the reported power reduction.

82-P20052

Piper PA22-150

C-FMDW

DATE: 8 Aug 1982 1810 PDT

OPERATION: Private recreation

PLACE: Radium Hot Springs BC 50/38N 116/06W

LOCALE: Gravel runway 2200' by 75', 2650' asl

WEATHER: Not significant

PILOT: Student

TOTAL HOURS:	18	ALL TYPES	4	ON TYPE
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LAST 90 DAYS:	4	ALL TYPES	4	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj.

OCCURRENCE: The pilot had recently purchased the aircraft in Saskatchewan and was on a ferry flight home. The day of the accident, he flew from Fort McLeod to Radium Hot Springs where he seemed to have some difficulty landing. On the third attempt he ballooned the aircraft and stalled in from about 20 feet.

The pilot had held a Student Pilot Permit (rescinded on medical grounds) and had taken about 15 hours dual instruction, but had not been checked out for solo flight.

82-P20056

Cessna 177RG

C-GHLR

DATE: 21 September 1982 1605 PDT

OPERATION: Private business

PLACE: Tumbler Ridge, B.C. 55/05N 120/50W

LOCALE: Rolling swamp area.

WEATHER: Wind calm, vis 15+, sky clear, temp 18°C.

PILOT: Private

TOTAL HOURS: 4200 ALL TYPES 750 ON TYPE

LAST 90 DAYS: 32 ALL TYPES 12 ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 1 uninj.

OCCURRENCE: The pilot stated that during take-off the engine started to run rough and lose power. An attempt was made to land on a road off to the side of the runway, but the aircraft landed short and came to rest in a small pond.

The fuel filter which was not submerged was found full of water and debris.

82-P20058

Quickie Q-2

C-CWFN

DATE: 8 September 1982 2012 PDT

OPERATION: Private test

PLACE: Cranbrook BC 49/37N 115/47W

LOCALE: Flat tree-covered area 2800' asl

WEATHER: Wind S 10 kt vis 25 cloud scattered temp 23°C

PILOT: Private

TOTAL HOURS: 90 ALL TYPES 0 ON TYPE

LAST 90 DAYS: 0 ALL TYPES 0 ON TYPE

DAMAGE: Destroyed

CASUALTIES: Crew: 1 fatal

OCCURRENCE: The pilot, who had not flown in several months, was conducting high-speed taxi tests with his homebuilt aircraft. It had been ground tested and issued a flight permit, but had never been test flown.

Witnesses saw the aircraft lift off and climb to approximately 500 feet AGL, where it levelled off and joined the circuit. All appeared normal until, on the downwind leg, the aircraft slowly descended into the trees. Fire broke out on impact, consuming the wreckage.

No cause for the unchecked descent could be determined. Investigation revealed that the engine was capable of producing power and the flight controls were serviceable at impact. Distraction and incapacitation are two possible factors which cannot be ruled out.

82-P20059

Cessna 172N

C-GIIY

DATE: 9 September 1982 1015 PST

OPERATION: Specialty recreation

PLACE: 15 mi S of Dall Lake BC 58/24N 127/37W

LOCALE: Tree-covered mountains 4100' asl

WEATHER: Suitable for VFR lowering weather in vicinity

PILOT: Commercial

TOTAL HOURS:	1450	ALL TYPES	150	ON TYPE
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LAST 90 DAYS:	150	ALL TYPES	90	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 serious; pass: 2 serious

OCCURRENCE: The pilot had limited mountain flying experience and was not familiar with the area. His passengers, one of whom was a licensed pilot, were map reading so that he could devote his full attention to the handling of the aircraft. They intended to follow the Stikine River valley, a route recommended by local flyers, but when the weather ahead appeared to deteriorate, the pilot altered course seeking a better route through the Cassiar range to the Rocky Mountain trench.

Flying in a narrow valley, the pilot again requested his passengers find him an alternate route, due to low cloud ahead. Turning as directed, he found himself headed toward rising terrain in a valley he judged too narrow for a 180 degree turn. The aircraft could not outclimb the mountain slope; the pilot reduced airspeed to the point of stall as the aircraft impacted trees.

The accident site was 60 nautical miles north of the track the pilot originally intended to follow. No one had been notified of his decision to alter course. Fortunately, despite their injuries, the occupants were able to evacuate the aircraft, remove the ELT, and hike to higher ground where they were located by Search and Rescue the next day.

82-P20060

Cessna 185F

C-GWNU

DATE: 18 Sep 1982 0920 PDT

OPERATION: Private business

PLACE: Kemano BC 54/29N 128/06W

LOCALE: Gravel runway 1300' by 40' 12' asl

WEATHER: Wind calm vis 15+ sky clear temp 14°C

PILOT: Commercial

TOTAL HOURS:	666	ALL TYPES	15	ON TYPE
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LAST 90 DAYS:	50	ALL TYPES	15	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 2 minor

OCCURRENCE: The pilot intended to land on floats, but discovered the water landing area was fog-bound. He set up for a wheel landing on an adjacent strip, which was very short but adequate under normal circumstances. After touchdown, the right brake did not function; the pilot pumped the brake pedal a few times then applied full throttle for a go-around. The aircraft became airborne, but did not gain sufficient height to prevent the floats from hitting some shrubs lining an embankment beyond the runway. It descended 20 feet, and impacted on a mud flat.

Permission was granted for the aircraft to be removed before the tide reached full flood. It was lifted from the mud and placed on a barge; during this procedure the floats were removed and, consequently, brake lines and assemblies disturbed. The reason for the failure, therefore, could not be determined.

The pilot stated that a brake check was not included on his "pre-landing" checklist, and he was not in the habit of performing one. He said they had functioned normally during taxi for take-off.

82-P20061

Cessna TP206B

C-FVZE

DATE: 15 September 1982 1700 PDT

OPERATION: Private business

PLACE: 25 mi SW of MacKenzie BC 55/11N 123/52W

LOCALE: Road in mountainous region

WEATHER: Wind calm, vis 15+ sky clear

PILOT: Private

TOTAL HOURS:	300	ALL TYPES	200	ON TYPE
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LAST 90 DAYS:	60	ALL TYPES	60	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj.

OCCURRENCE: When the engine began to run roughly and backfire in cruise, the pilot enriched the mixture and turned on the boost pumps. The problem seemed to increase and, as higher terrain lay between his position and the airport, he elected to carry out a precautionary approach to a logging road. The approach speed was high; most of the straight stretch of road was used up before touchdown. On the landing roll, as the pilot attempted to negotiate a curve, the nose wheel dug into the soft ground of a shallow ditch causing the aircraft to flip inverted.

Investigation revealed that the engine roughness was due to lead-fouled spark plugs. This condition was aggravated when the pilot enriched the mixture, and may have been rectified had he leaned it out instead.

82-P20062

DeHavilland DHC-2

C-FJAA

DATE: 18 September 1982 1920 PDT

OPERATION: Charter

PLACE: Port Simpson, B.C. 54/33N 130/26W

LOCALE: Flat grass-covered area 10' ASL

WEATHER: Wind calm, vis 1/8, sky obscured in fog, temp 12°C.

PILOT: Commercial

TOTAL HOURS:	2700	ALL TYPES	1400	ON TYPE
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LAST 90 DAYS:	240	ALL TYPES	220	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 5 uninj.

OCCURRENCE: The pilot noted sea fog rolling in, just covering the seaplane dock at his destination. He landed in a clear area, and wanting to debark his passengers and take-off before the whole area became fogbound, step-taxied at high speed toward the dock. As he entered the fog bank he found the visibility was less than expected. The aircraft veered slightly off course; it headed toward the shoreline which became visible when insufficient room remained to stop. The pilot pulled the aircraft off the water to clear a 6 ft embankment, and crash-landed in low brush beyond.

82-P20063

de Havilland DHC-3

C-FDJA

DATE: 18 Sep 1982 0907 PDT

OPERATION: Charter

PLACE: Two Bridge Lake BC 54/54N 126/58W

LOCALE: Rocky tree-covered mountains 3800' asl

WEATHER: Wind SE 3 kt vis 3 sky obscured temp 6°C

PILOT: Commercial

TOTAL HOURS:	8736	ALL TYPES	1510	ON TYPE
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LAST 90 DAYS:	75	ALL TYPES	Unknown	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 fatal; pass: 4 fatal

OCCURRENCE: Two company aircraft, each carrying a party of hunters, departed Tyhee Lake bound for separate camps located relatively close together. The accident aircraft, the larger of the two, was loaded with equipment belonging to both groups. The pilot was to drop off his passengers, then fly to the other camp; he did not arrive. An ELT signal was heard by the pilot of the smaller aircraft, on the return flight to Tyhee Lake. The Otter had crashed approximately 10 minutes after take-off.

The wreckage was located in a canyon, several miles east of track. Witnesses saw the aircraft cruising at low altitude, and photographs taken by the passengers confirm that it was flying along a valley, well below the level of the surrounding terrain. The pilot flew into a confined area and the overloaded Otter could not outclimb the slopes ahead. In an attempt to reverse course, the pilot initiated a steep turn; the aircraft stalled at an altitude too low for recovery to be effected.

It is not known why the pilot did not follow the direct route to destination. As he was very familiar with the area, and the enroute weather posed no problems, it appears that he intentionally altered course.

82-P20064

Piper PA-12

C-FZUH

DATE: 23 September 1982 1905 PDT

OPERATION: Private business

PLACE: Mount Brent BC 49/29N 119/55W
 LOCALE: Tree-covered mountains 7000' asl
 WEATHER: Wind calm vis 15+ sky clear
 PILOT: Private
 TOTAL HOURS: 703 ALL TYPES 425 ON TYPE
 LAST 90 DAYS: 17 ALL TYPES 17 ON TYPE
 DAMAGE: Destroyed
 CASUALTIES: Crew: 1 fatal; pass: 1 fatal
 OCCURRENCE: The pilot departed the ranch strip for a short, local flight to search for stray steers. When the aircraft failed to return, a search was initiated; the burnt-out wreckage was located a week later near the summit of Mount Brent. The aircraft had struck a rock outcropping, and come to rest against several trees on a rocky ledge.

Investigation revealed that the aircraft was well maintained and serviceable at the time of take-off. No pre-impact failure or malfunction was indicated. The pilot had conducted several of these low-level flights in the past and was considered, by witnesses, to be competent. No cause for this accident could positively be determined.

82-P20065

Piper PA18-135

C-FHFH

DATE: 16 Oct 1982 1630 PDT
 OPERATION: Private business
 PLACE: West Toad River BC 58/37N 125/58W
 LOCALE: Tree-covered mountains
 WEATHER: Wind light vis 10+ cloud scattered temp -4°C
 PILOT: Private
 TOTAL HOURS: 3000 ALL TYPES 3000 ON TYPE
 LAST 90 DAYS: 120 ALL TYPES 120 ON TYPE
 DAMAGE: Substantial
 CASUALTIES: Crew: 1 uninj.
 OCCURRENCE: On final approach to a short bush strip, the pilot selected full flap and reduced airspeed to approximately 60 mph. At a point about 20 ft AGL, the aircraft's right wing dropped suddenly. The pilot applied full left aileron and rudder, pulled back on the control column, and advanced the throttle for an overshoot. The aircraft began to climb but remained in a right-banked attitude. It cleared the trees bordering the strip, then stopped climbing; it travelled in an arc through 210 degrees before striking taller timber.

Examination of the wreckage revealed no evidence of failure or malfunction of the airframe, engine, or flight controls before impact. Both flaps were still fully extended. It was concluded that a right hand wing-tip stall was induced when the pilot applied full left aileron on final, in the attempt to level the wings.

DATE: 23 Oct 1982 1440 PDT

OPERATION: Private business

PLACE: Kwatna Bay BC 52/10N 127/35W

LOCALE: Compact area 3000' by 75'

WEATHER: Wind calm vis 10 cloud 3500' overcast

PILOT: Commercial

TOTAL HOURS:	5200	ALL TYPES	100	ON TYPE
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LAST 90 DAYS:	Unknown	ALL TYPES	78	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 4 uninj.

OCCURRENCE: The pilot arrived over the destination airstrip, established radio contact and received the weather information. He planned to land from west to east to avoid obstructions and clouds east of the field. The pilot reported that on the prelanding check, the gear was selected down and indicated 3 green lights. Just at, or slightly before touchdown, a horn sounded and the pilot thought he had touched down.

He lifted off again briefly; at this point, he noticed the gear red light was on, but did not associate the horn with the gear in transit. With the throttles closed, the aircraft settled on the strip and slid to a stop.

Examination revealed that although the gear operated stiffly, it was functioning normally. It could not be determined why the gear retracted after touchdown.

DATE: 6 Nov 1982 1130 PST

OPERATION: Private business

PLACE: Bella Bella, BC 58/09N 128/05W

LOCALE: Water area at sea level

WEATHER: Wind W 13 kt vis 15+ cloud 1500' scattered temp 5°C

PILOT: Airline Transport

TOTAL HOURS:	2900	ALL TYPES	150	ON TYPE
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LAST 90 DAYS:	70	ALL TYPES	5	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 2 uninj.

OCCURRENCE: Following completion of a flight from Vancouver to Bella Bella, the pilot, who was inexperienced on single-engine float-equipped aircraft, and unfamiliar with the area, misjudged the wind direction by 180 degrees and landed with excessive speed downwind. Immediately following touchdown, she erroneously eased off the back pressure on the control column, and the aircraft's port float-tip dug into the water causing the aircraft to cartwheel and overturn. The pilot and her two passengers were picked up by a nearby fishing boat.

The pilot was experienced on type, but not on the float-equipped version.

82-P20070

Bell 206B

C-GNMG

DATE: 10 November 1982 1620 PST

OPERATION: Charter

PLACE: near Blackwater Road BC 53/32N 122/57W

LOCALE: Flat frozen swamp area

WEATHER: Wind calm vis 25 cloud 7500' overcast, temp -1°C

PILOT: Commercial Rotorcraft

TOTAL HOURS: 2015 ALL TYPES 845 ON TYPE

LAST 90 DAYS: 61 ALL TYPES 61 ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj.

OCCURRENCE: The pilot was attempting to land on a frozen swamp lightly covered with snow. As the helicopter touched down, the bearpaw on the pilot's side broke through the ice.

The pilot applied collective in an attempt to level the helicopter, resulting in a dynamic roll-over.

82-P20071

Grumman AA1B

C-GLCE

DATE: 15 Nov 1982 1800 PST

OPERATION: Private recreation

PLACE: 8 mi NE of Clinton BC 51/06N 121/33W

LOCALE: Tree-covered hills 3800' asl

WEATHER: Wind N 7 kt vis 1 in light snow cloud 1000' obscured temp 0°C

PILOT: Private

TOTAL HOURS: 127 ALL TYPES 88 ON TYPE

LAST 90 DAYS: 64 ALL TYPES 64 ON TYPE

DAMAGE: Destroyed

CASUALTIES: Crew: 1 fatal

OCCURRENCE: The aircraft was reported overdue on the last leg of a flight from Ft. Nelson, to Kamloops, BC. Several hours later, the wreckage was located with the aid of the ELT and a SAR satellite. It had impacted the side of a hill in near level flight with considerable power.

Investigation failed to reveal any evidence of aircraft malfunction or pilot incapacitation.

The weather at the time resulted from a weak upper trough moving southward through the BC interior. Extensive cloud cover, with low ceilings and poor visibility in snow showers, had been forecast. Actual conditions near the crash site indicate the weather at the time of the accident was below VFR. In addition, these poor conditions were compounded by darkness.

Several witnesses along the route reported seeing the aircraft flying at a very low altitude through areas of low ceilings and poor visibilities.

Investigators concluded the pilot flew into the side of the hill while attempting to maintain visual reference in below VFR weather and darkness. From the evidence examined, it is apparent that given the circumstances at the time, maintaining visual flight would be virtually impossible.

82-P20073

Bellanca 8GCBC

C-GPDC

DATE: 8 Dec 1982 1530 PST

OPERATION: Private business

PLACE: 1 mi E of Tsacha Lake BC 53/05N 124/40W

LOCALE: Snow-covered grass field

WEATHER: Not significant

PILOT: Private

TOTAL HOURS:	3500	ALL TYPES	3500	ON TYPE
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LAST 90 DAYS:	45	ALL TYPES	45	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj.

OCCURRENCE: The pilot had landed on the field earlier in the afternoon when there was a light snow covering the ground. He reported that on the take-off run, one ski hit a grassy hummock causing the gear to collapse.

82-P20074

Piper PA28-140

CF-EZZ

DATE: 27 Dec 1982 1434 PST

OPERATION: Private recreation

PLACE: Titetown Lake BC 53/10N 123/50W

LOCALE: Snow-covered lake

WEATHER: Wind light vis 15+ cloud 5000' scattered

PILOT: Private

TOTAL HOURS:	116	ALL TYPES	58	ON TYPE
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LAST 90 DAYS:	6	ALL TYPES	6	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 1 uninj.

OCCURRENCE: The pilot decided to land his wheel-equipped aircraft on a frozen lake, near a friend's cabin. He made two low passes to inspect the surface conditions, then approached and landed. The snow covering was much deeper than anticipated; the aircraft lost forward speed very rapidly and flipped inverted.

81-Q10099

Cessna 180B

C-GUVF

DATE: 10 Sep 1981 1500 EDT

OPERATION: Private recreation

PLACE: Manicouagan River Que 49/13N 68/23W

LOCALE: River water area 125' asl

WEATHER: Wind SW 17 kt vis 45 cloud 9000' broken temp 12°C

PILOT: Private

TOTAL HOURS:	144	ALL TYPES	75	ON TYPE
LAST 90 DAYS:	63	ALL TYPES	63	ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 minor; pass: 1 minor

OCCURRENCE: After lift-off, at an airspeed of 60 mph, the pilot commenced a climbing turn to the right. He then reduced the throttle to climb power but had difficulty moving the propeller control. The aircraft, still maintaining a low airspeed, was now flying downwind and losing height. The pilot saw a log boom looming in front of him and lowered 20° of flap to avoid it. The aircraft missed the log boom, but then the right float struck the water and the aircraft nosed over. The pilot had concentrated his attention on cockpit chores rather than the control of his aircraft. It is suspected there were downdrafts from the gusting winds and hilly terrain.

81-Q10110

Bell 206B

C-GUKK

DATE: 19 Oct 1981 1030 EDT

OPERATION: Specialty inspection

PLACE: 35 mi SE of Caniapiscau Que 54/40N 68/53W

LOCALE: Rolling tree and grass-covered area

WEATHER: Wind SSW 16 G 23 kt vis 15 cloud 1400' broken temp 6°C

PILOT: Commercial Rotorcraft

TOTAL HOURS:	2207	ALL TYPES	451	ON TYPE
LAST 90 DAYS:	203	ALL TYPES	82	ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 fatal; pass: 1 fatal

OCCURRENCE: The helicopter was chartered for a caribou survey which required the pilot to herd the animals. Two passengers were dropped off to conduct a count, then the pilot took off and flew southward towards a herd, at a height of about 500 feet. The winds were from the south at 16 knots, gusting to 23. The two who had disembarked, observed the helicopter turn to the left, then enter into a series of left gyrations until striking the ground. The pilot and passenger egressed through the left door, but were then fatally injured by the main rotor blades.

On-site inspection and laboratory examination, did not disclose any mechanical failure of the engine, rotor blades or controls. The damage to the tail rotor drive and blades, indicated that it was under power. The absence of damage to the main rotor blades, suggested substantial power as the blades had not flexed downward to strike the tail boom. (LP 410/81, LP 411/81)

It is believed that the pilot had reduced his speed in preparation to herd the caribou, and as he turned downwind, he unknowingly initiated a "settling with power" condition. The 500 foot height was insufficient to recover.

DATE: 17 Jan 1982 1450 EST

OPERATION: Specialty inspection

PLACE: Lac Little Poignan Que 47/09N 76/15W

LOCALE: Flat snow-covered area

WEATHER: Wind N light vis 15+ sky clear temp -30°C

PILOT: Commercial

TOTAL HOURS: 796 ALL TYPES 38 ON TYPE

LAST 90 DAYS: 103 ALL TYPES 23 ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 1 uninj.

OCCURRENCE: Approximately 1 hour after departure, the pilot noticed that the electric trim had failed. He continued flight for another 14 minutes during which time the cyclic control became more difficult to move. He decided to land and check the main rotor. During the pre-takeoff checks, the trim functioned normally, but as he increased the RPM to 2200, the aircraft began to vibrate. He immediately chopped the power and tried again with the same results. On the third attempt, a maximum of 2500 RPM was attained, but again he had to cut power.

Realizing that they were caught in the woods with temperatures forecast to drop to -50°C overnight, a take-off was attempted. In spite of the strong vibrations, the power was increased to 2750 RPM and collective applied. As the aircraft began to lift-off, control was lost and the machine rolled over onto its side.

Since deep snow had been anticipated, the rear oleo pneumatic shock absorbers had been over-inflated; this would raise the tail, thereby preventing the rotor from striking the snow. It is most probable that the fully extended rear-shock, in conjunction with one or two rotor blades being out of phase due to the cold temperatures, induced ground resonance resulting in the loss of control. The pilot had only 38 hours on type, and may not have been fully aware of the disastrous effects of ground resonance.

82-Q20010

Cessna 172K

C-FEUG

DATE: 26 Jan 1982 1510 EST

OPERATION: Specialty recreation

PLACE: Lac Croche Que 47/31N 72/46W

LOCALE: Flat snow-covered field

WEATHER: Wind WNW 5 kt vis 25+ sky clear temp -18°C

PILOT: Private

TOTAL HOURS: 267 ALL TYPES 228 ON TYPE

LAST 90 DAYS: 21 ALL TYPES 16 ON TYPE

DAMAGE: Destroyed

CASUALTIES: Crew: 1 fatal; pass: 1 fatal

OCCURRENCE: Two or three times earlier in the day, the young pilot was refused the use of an aircraft because of extreme cold temperatures. He persisted, and at 1450 hours a company aircraft landed and he was permitted to use it for a local flight. He and a friend took off at 1500 hours.

Approximately 12 minutes later, the aircraft was observed flying at a very low height, then commence a steep turn to the left. The sound of power being applied was heard about the same time as the left wing struck hydro wires. The aircraft then struck the ground in a steep nose-down, left wing low attitude.

The technical examination of the wreckage and log books revealed no evidence of any mechanical deficiency.

82-Q20012

Piper PA28-140

C-GGVB

DATE: 31 January 1982 1335 EST

OPERATION: Specialty - training

PLACE: Sorel Arpt Que. 45/59N 73/03W

LOCALE: Snow-covered gravel runway 4000' by 75 76' asl

WEATHER: Wind NNW 5 kt vis 10+ cloud 3500'

PILOT: Commercial

TOTAL HOURS:	Unknown	ALL TYPES	Unknown	ON TYPE
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LAST 90 DAYS:	Unknown	ALL TYPES	Unknown	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 2 uninj; pass: 1 uninj.

OCCUURENCE: The student and his instructor were carrying out a practice full-stop forced landing on a snow-covered icy runway. Touching down 300' past the threshold, the student became disoriented due to whiteout conditions, and allowed the aircraft to drift left; the left wheel hit a snowbank along the side. As the aircraft started to swing left, the instructor took control and attempted to correct it with right rudder. His efforts were unsuccessful and the aircraft came to rest in the snowbank.

82-Q20023

Cessna 180

C-FKWW

DATE: 21 Mar 1982 1530 AST

OPERATION: Private recreation

PLACE: 1 mile E of Lac Fouguet Que 51/30N 66/52W

LOCALE: Snow-covered frozen lake

WEATHER: Wind NE 4 kt vis 25 sky clear temp -10°C

PILOT: Private

TOTAL HOURS:	1100	ALL TYPES	238	ON TYPE
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LAST 90 DAYS:	60	ALL TYPES	60	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 1 uninj.

OCCURRENCE: After touching down, the pilot realized that the snow surface and the tail wind condition were not to his liking so he decided to overshoot. The engine, however, did not respond and a full stop landing had to be made. To lengthen his landing distance, he commenced a gentle turn to the right, and as he did, the left ski broke through the upper thin surface of ice. The left gear leg broke, and the aircraft came to rest on the fuselage and left wing tip.

The main ice surface was covered with 10 inches of water and the upper thin surface was not thick enough to support the aircraft.

The failure of the engine to respond was probably due to a rapid movement of the throttle.

82-Q20034

Mooney M20E

C-FZZH

DATE: 30 May 1982 1405 EDT

OPERATION: Private - business

PLACE: St Jean Arpt, Que. 45/18N 73/13W

LOCALE: Paved runway 2474' by 100', 136' asl

WEATHER: Wind SSW 8 kt, vis 15+, sky clear

PILOT: Airline Transport

TOTAL HOURS:	6000	ALL TYPES	75	ON TYPE
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LAST 90 DAYS:	120	ALL TYPES	14	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 3 uninj.

OCCURRENCE: After take-off, the gear unlocked but did not retract when the up selection was made. The pilot then attempted several times, but unsuccessfully, to lock the gear in the down position by normal and manual methods. During the landing, the gear folded and the aircraft swung off the runway.

Technical examination showed that the gear motor was torn free from its attachment points, and both longitudinal push-pull tubes for the main gear were bent. Laboratory examination of the worm gear/ball screw assembly showed the worm gear to be jammed with the worm screw; they were so severely worn that the gear and screw were mismatched and the tops of the teeth were jammed against each other. The wear took place over an extended period, and probably resulted from inadequate maintenance. (LP 160/82)

82-Q20035

de Havilland DHC-2

C-FJBM

DATE: 28 May 1982 1910 EDT

OPERATION: Charter

PLACE: Lac Sebastien Que 48/39N 71/11W

LOCALE: Lake water area 15840' by 700'

WEATHER: Wind SSE 7 kt vis 15 cloud 5500' scattered temp 27°C

PILOT: Commercial

TOTAL HOURS:	3380	ALL TYPES	Unknown	ON TYPE
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LAST 90 DAYS:	1	ALL TYPES	1	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 fatal

OCCURRENCE: About 4 minutes after take-off, the pilot radioed that he was returning to base because of high cylinder head temperatures. A few seconds later, the engine lost power. During the final turn to the lake, the left wing struck tree tops; control was lost and the aircraft crashed into the water. The pilot had not flown for 6 months, and this was his first operational flight of the season.

Technical examination confirmed the integrity of the flight controls and surfaces. Laboratory examination of the engine and components revealed several discrepancies, none of which would have caused the engine to fail. These included 2 unserviceable pushrods, 2 spark plugs, 1 magneto, and a cracked piston. The carburettor was functionally tested and found serviceable, but the test figures showed an excessively lean condition. This could have been the cause of the high cylinder head temperatures (LP 167/82, LP 175/82, and Standard Aero Report) refer.

The engine-driven fuel pump was tested and found to be inoperative, and therefore probably caused the engine failure. The pump was dismantled for internal inspection, but no discrepancies were noted. In fact, after reassembly, the pump functioned normally. No reason could be found for the unserviceability during the initial testing (LP 163/82 refers).

82-Q20047

Acro Zenith

C-GZEN

DATE: 28 Jun 1982 1945 EDT

OPERATION: Private test

PLACE: 6 mi N of Rockcliffe Arpt Ont 45/31N 75/40W

LOCALE: Flat cultivated field 340' asl

WEATHER: Wind SSW 5 kt vis 25 cloud 5000' scattered temp 25°C

PILOT: Commercial

TOTAL HOURS:	1955	ALL TYPES	25	ON TYPE
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LAST 90 DAYS:	26	ALL TYPES	16	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 minor

OCCURRENCE: After installing a Hoffman wooden propeller, a test flight was conducted to evaluate its performance. A loud "bang" was heard followed by the separation of the propeller and top cowling. The pilot glided to an emergency landing, during which the aircraft nosed over.

The technical investigation revealed that the six propeller mounting bolts had all failed due to low cycle, high stress fatigue. There was strong evidence to show each had "run out of thread" during installation, as the result of inadequate stack-up. Severe abnormal loads were then imposed on the bolts, initiating the failure.

82-Q20081

de Havilland DHC-2

C-GUHN

DATE: 29 October 1982 1735 EDT

OPERATION: Charter

PLACE: Dolbeau Que 48/47N 72/22W

LOCALE: Flat grass-covered area 650' by 52'

WEATHER: Wind ESE 6 kt vis 15 sky clear temp 12°C

PILOT: Commercial

TOTAL HOURS: 5525 ALL TYPES Unknown ON TYPE

LAST 90 DAYS: Unknown ALL TYPES Unknown ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 fatal

OCCURENCE: After removing the floats and installing wheels on the Beaver, the pilot, took off from an excessively short and narrow strip obstructed on both sides. As he got airborne, the left wing struck a tree, causing the aircraft to swing to the left. It then struck a post and the left wing was torn off. The aircraft rolled violently and crashed into the river off the end of the strip.

82-Q20089

Swearingen SA226AT

C-GJWW

DATE: 17 Dec 1982 0114 EST

OPERATION: Charter

PLACE: Dorval Int'l Arpt Que 45/28N 73/45W

LOCALE: Paved runway 11000' by 200' 117' asl

WEATHER: Wind N 10 kt vis 15 cloud 2000' scattered temp -7°C

PILOT: Airline Transport

TOTAL HOURS: 6270 ALL TYPES 2600 ON TYPE

LAST 90 DAYS: 270 ALL TYPES 270 ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 2 uninj.

OCCURRENCE: On final approach, the left main gear did not extend when the gear was selected down. After several unsuccessful attempts to lower the gear by emergency methods, the pilot landed the aircraft on the right main gear and nose wheel.

Technical examination showed that the outer wheel assembly had failed in overload after it had been weakened by fatigue crack propagation. The fatigue had propagated in a relatively high cycle/low stress mode. No significant material defects or deficiencies were found that would have contributed to the failure. (LP 414/82 refers.)

83-Q30001

Cessna A185F

C-GUXI

DATE: 25 Jan 1983 1145 EST

OPERATION: Charter

PLACE: Lac Manitou Que 46/03N 74/23W

LOCALE: Snow-covered frozen lake 1273' asl

WEATHER: Wind WSW 8 kt vis 3/8 cloud 400' obscured with snow

PILOT: Commercial

TOTAL HOURS:	7400	ALL TYPES	2000	ON TYPE
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LAST 90 DAYS:	5	ALL TYPES	5	ON TYPE
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DAMAGE: Destroyed

CASUALTIES: Crew: 1 fatal

OCCURRENCE: During the return flight, the pilot had to land and stopover for a night because of inclement weather. The following morning, he telephoned the company to advise them conditions were still poor. They informed him that his destination weather was good, but the decision of whether or not to depart was his - a short time later he took off.

He was airborne approximately five minutes when the aircraft struck the surface. A witness situated less than a mile from the accident site, saw the aircraft fly by at about 100 feet. He stated the aircraft was barely discernible in the heavy snow shower.

A weather report from an observation station in the immediate vicinity indicated cloud ceilings at 800 feet, and visibility of 3 to 6 miles in light snow. Occasional ceilings of 400 feet and visibility of $\frac{1}{2}$ to 3 miles was forecast. It is not known if the pilot had contacted the station prior to his departure.

81-W10074

Aero Commander AC680U

C-GJNH

DATE: 9 Jul 1981 1940 MDT

OPERATION: Charter

PLACE: Red Deer Arpt Alt 52/11N 113/54W

LOCALE: Paved runway 3524' by 100', 2968' asl

WEATHER: Wind S 13 kt vis 15+ cloud 10,000 obscured temp 15°C

PILOT: Airline Transport

TOTAL HOURS:	6000	ALL TYPES	1200	ON TYPE
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LAST 90 DAYS:	225	ALL TYPES	225	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 serious

OCCURRENCE: The pilot delayed landing for twenty minutes to allow a thunderstorm to clear the area. As he commenced his approach, he was aware the runway was covered with water. In addition, it was raining moderately, and there was wind shear at 100 ft.

On approach, the left engine failed and was incapable of producing power. The pilot continued and touched down in the first third of the runway. Maximum braking and maximum reverse thrust on the right engine were applied but proved ineffective; the aircraft continued off the runway and across the over-run before it came to rest.

Engine malfunction resulted from failure of the rear bearing of the torque sensing unit. Debris and rollers had dropped out of the assembly, and were drawn into the engine oil scavenger pumps causing the pumps to seize. The tires showed signs of rubber reversion clearly indicating that the aircraft was hydroplaning after touchdown. This would explain why it was unable to stop in the available runway.

DATE: 17 Jul 1981 1320 MDT

OPERATION: Specialty construction

PLACE: 5 mi SW of Big Horn Dam Alt 52/22N 116/23W

LOCALE: Tree-covered mountains 5500' asl

WEATHER: Wind calm vis 15+ sky clear temp 15°C

PILOT: Private fixed-wing and Commercial Rotorcraft

TOTAL HOURS:	5200	ALL TYPES	950	ON TYPE
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LAST 90 DAYS:	200	ALL TYPES	200	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj.

OCCURRENCE: The pilot was conducting long-line slinging in support of a portable seismic operation. As he lowered the load to the ground, he felt the helicopter settle as if in a severe downdraft; at the same time, a warning horn sounded.

The pilot moved his head back into the cockpit and noted reducing rotor RPM. With a minimum of altitude available, the pilot was unable to regain rotor RPM and the helicopter settled into the trees.

An engine tear-down revealed no reason for engine failure. However, the fuel flows obtained in most power regimes were outside of specifications. The loss of power was attributed to a malfunctioning fuel control unit.

DATE: 25 Aug 1981 0910 YDT

OPERATION: Charter

PLACE: Livingstone Creek, YT 61/15N 134/18W

LOCALE: Swamp in mountainous area 3600' asl

WEATHER: Wind calm vis 5 sky obscured temp 8°C

PILOT: Commercial Rotorcraft

TOTAL HOURS:	3500	ALL TYPES	2000	ON TYPE
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LAST 90 DAYS:	330	ALL TYPES	330	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj.

OCCURRENCE: The helicopter lost engine power at 7000 feet so the pilot selected automatic ignition. This action was ineffective and the pilot entered auto-rotation and landed straight ahead. On touchdown, the helicopter rocked forward and the main rotor blades severed the tail boom assembly.

No system malfunction was discovered to explain the power loss. It is probable that air was introduced to the fuel system via the drain valve of the engine driven pump filter housing. It was found an accumulation of 8 to 10 seconds of air eventually causes an engine flame-out.

82-W20022

Taylorcraft BC1265

C-FSWZ

DATE: 2 May 1982 1700 MDT

OPERATION: Private recreation

PLACE: Pine Airfield Alt 53/13N 114/53W

LOCALE: Flat tree-covered area 2750' asl

WEATHER: Wind ESE 30 G 40 kt vis 15+ sky clear temp 18°C

PILOT: Commercial

TOTAL HOURS: 1750 ALL TYPES 350 ON TYPE

LAST 90 DAYS: 65 ALL TYPES 10 ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj.

OCCURRENCE: The pilot was preparing to take off from a turf aerodrome. The runway was aligned 060/240, but because the wind was from 120 at 35 kts, he decided to take off into wind across the runway rather than along it. This did not allow for any margin of error, and was less than ideal given the soft and muddy conditions. The pilot lifted off before safe flying speed was attained, and flew along for a short distance "behind the power curve". The aircraft met with subsiding air and was forced into trees.

82-W20035

Sirocco MJ5-F2

C-GRDM

DATE: 9 Jun 1982 1502 MDT

OPERATION: Private recreation

PLACE: Fort McMurray Arpt Alt 56/39N 111/13W

LOCALE: Paved runway 6000' by 150' 1211' asl

WEATHER: Wind WNW 10 kt vis 15 cloud 6000' broken temp 17°C

PILOT: Commercial

TOTAL HOURS: 562 ALL TYPES 15 ON TYPE

LAST 90 DAYS: 6 ALL TYPES 5 ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj.

OCCURRENCE: The pilot reported that during a cross-wind landing, the right wheel touched down hard causing the right gear scissor to fail at a welded attachment point. The aircraft then veered off the side of the runway into a rough area; the landing gear collapsed and the craft slid to a stop on its belly.

82-W20036

Cessna A188A

C-GABF

DATE: 10 June 1982 0530 MDT

OPERATION: Specialty - application

PLACE: near Holden, Alt. 53/05N 112/05W

LOCALE: Rolling tree-bordered field 2400' asl

WEATHER: Wind N 8 kt, vis 15, sky clear, temp 6°C.

PILOT: Commercial

TOTAL HOURS: 800 ALL TYPES 500 ON TYPE

LAST 90 DAYS: 30 ALL TYPES 30 ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj.

OCCURRENCE: The pilot was spraying a farm field early in the morning. During the turns at the end of the first two swaths, he noted the aircraft was sluggish, and the controls felt sloppy. Despite having to decrease bank and fly a turn twice as wide as usual to prevent the aircraft from stalling, he continued spraying. At the start of the turn following his third swath, the aircraft began to sink. Application of full power and jettisoning the load failed to check the sink; the aircraft collided with a grove of trees.

A post-accident examination of the engine revealed numerous discrepancies, including an improperly sized hose clamp in the induction system; it had loosened and allowed air in uncontrolled amounts to enter the system, resulting in a lower than normal power output. There were leaks discovered in the manifold pressure line which led to false manifold pressure readings. In addition, the aircraft's stall warning device was inoperative. Investigation determined that the pilot had performed most of the work on an annual CCI, completed 13 flight hours before the accident.

82-W20037

Cessna 180C

C-FQID

DATE: 9 June 1982 1615 MDT

OPERATION: Private training

PLACE: Lacombe Arpt Alt 52/29N 113/43W

LOCALE: Paved runway 3000' by 75' 2800' asl

WEATHER: Wind calm vis 15+ sky clear temp 18°C

PILOT: Private

TOTAL HOURS:	120	ALL TYPES	25	ON TYPE
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LAST 90 DAYS:	2	ALL TYPES	2	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj.

OCCURRENCE: During the final part of the take-off roll as the tail came up, the pilot noted the aircraft start to yaw left and the right wing drooped. He pulled off power and heavily applied both brakes. The aircraft continued to swerve left even though the right wing tip was now dragging on the runway. As it was slowing down, it turned sharply to the left, and slid backwards, stopping just off the runway.

Investigation revealed that one of the right main gear wedges had been installed without the benefit of extra shims. When inserted, the wedge bottomed out before it effectively gripped the landing gear leg, to prevent it moving in the box beam. Also, the nut installed on the upper main attaching bolt was not self-locking (as specified in the parts catalogue) and had progressively backed off the bolt. These two items combined to allow the right main landing gear assembly to finally separate from the fuselage. Misalignment of the right wheel as it folded under the belly and effective braking of the left wheel caused the craft to swing left. (LP 186/82)

82-W20041

Bell 206B

C-GQRQ

DATE: 19 June 1982 1824 PDT

OPERATION: Specialty control

PLACE: Canfor Forestry Camp, Alt. 56/43N 119/55W

LOCALE: Rolling grass-covered area

WEATHER: Wind W 8 kt, vis 40+, sky clear, temp 23°C

PILOT: Commercial Rotorcraft

TOTAL HOURS: 6400 ALL TYPES 4000 ON TYPE

LAST 90 DAYS: 75 ALL TYPES 75 ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj;

OCCURRENCE: Following refuelling, the pilot forgot to remove the fuel nozzle from the helicopter's fuel filler neck. When he attempted take-off, the nozzle remained wedged in the filler neck and the helicopter lifted the drum, pump, and hose off the ground. He lost control, and the helicopter landed on its left side, 150' from the helipad.

The pilot had been engaged in forest fire control operations, and had flown 38 hours in four days - 9 of which were on the day of the accident after only 6 hours of interrupted sleep. It is likely that fatigue led the pilot to forget to remove the fuel nozzle.

82-W20042

Aerospatiale AS-355E

C-GFSI

DATE: 20 June 1982 1834 MDT

OPERATION: State

PLACE: 25 mi W of Peace River Alt 56/25N 117/55W

LOCALE: Rolling grass-covered area 1500 asl

WEATHER: Wind SW 15 kt vis 15 sky clear temp 27°C

PILOT: Airline Transport, Rotorcraft Endorsement

TOTAL HOURS: 10320 ALL TYPES 200 ON TYPE

LAST 90 DAYS: 70 ALL TYPES 70 ON TYPE

DAMAGE: Destroyed

CASUALTIES: Crew: 1 minor; pass: 5 uninj.

OCCURRENCE: The pilot was entering a low altitude hover when he heard a loud crack and a thump. The helicopter then rotated rapidly to the left and rolled over on its right side. Fire broke out shortly after impact, but all occupants were able to exit safely. The pilot tried to operate the overhead fuel shut-off and the throttles, but they were jammed.

The post-impact fire consumed all non-ferrous parts of the helicopter, except a section of the tail boom which burned off, and fell free of the main wreckage. Evidence at the scene indicated that the tail boom was struck by the main rotor as the machine rolled over. There was no evidence of a pre-impact main or tail rotor strike.

Laboratory analysis failed to reveal any pre-impact failure of the tail rotor drive components that were not damaged by the fire. Extensive fire damage of the forward section of the tail rotor drive system, made any positive analysis or conclusions about its pre-impact integrity virtually impossible. It was evident, however, that when struck by the main rotor, the tail rotor drive shaft was rotating at abnormally low RPM. There was also evidence to suggest the shaft may have been turning as a result of rotational inertia of the tail rotor.

The limited evidence examined suggests that a failure of the tail rotor drive system may have occurred. If so, it was of an aluminum part destroyed by the fire (LP 240/82, LP 241/82).

82-W20044

Cessna A188B

C-GIAS

DATE: 23 June 1982 1530 PDT

OPERATION: Specialty application

PLACE: Hotchkiss, Alt. 57/19N 118/55W

LOCALE: Gravel runway 2700' by 75', 3100' asl

WEATHER: Wind E 13 kt, vis 15+, cloud SCT, temp 23°C

PILOT: Commercial

TOTAL HOURS:	860	ALL TYPES	600	ON TYPE
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LAST 90 DAYS:	135	ALL TYPES	133	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj

OCCURRENCE: Following a day spent seeding and fertilizing a pipeline right of way, the pilot was departing a forestry airstrip that had served as his base of operations. Because the aircraft's AEW was less than it had been for departures earlier in the day, the pilot decided to use only 1000' to 1200' of the available 2700' of runway. He was not aware of the consequences that a 5° upslope, a loose gravel surface, a field elevation of 3100', and an above standard temperature, would have on his required take-off roll. It seems that at about the time of departure, a 180° windshift occurred resulting in a take-off tailwind of approximately 15 kts. Consequently, the aircraft failed to become airborne before reaching the end of the runway; it ran off the end, proceeded down a steep incline, and stopped 150' from the button.

82-W20049

Piper PA28-140

C-GXAF

DATE: 8 Jul 1982 1200 MDT

OPERATION: Private - business

PLACE: Villeneuve Arpt Alt 53/40N 113/51W

LOCALE: Paved runway 3500' by 100' 2241' asl

WEATHER: Wind SSE 8 kt vis 15 sky broken with rain showers

PILOT: Private

TOTAL HOURS:	210	ALL TYPES	180	ON TYPE
LAST 90 DAYS:	15	ALL TYPES	15	ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 minor; pass: 2 minor

OCCURRENCE: The pilot had accelerated to near lift-off speed when he noticed that his airspeed indicator had malfunctioned. Deciding to reject the take-off attempt, he closed the throttle and pulled on the hand-operated brake lever. A combination of the late decision to discontinue the take-off, a wet runway, and an awkward brake control caused the aircraft to overrun the end of the runway and skid on wet grass to one of two man-made drainage ditches which crossed through the overrun area. The nosegear collapsed on striking the ditch, and the aircraft nosed over inverted. The right front seat passenger was able to exit through a broken window but the pilot and remaining passenger were trapped inside; they were later released by rescue personnel.

The Aircraft Pilot Operating Handbook indicates that a pitot cover should be used to prevent insects from blocking the pitot static system while the aircraft is parked. Prior to this attempted flight, the aircraft had been parked outside for 3 weeks without a pitot cover installed. The pitot head static and pressure ports were totally blocked by deposits of a cocoon-like material.

82-W20050

Cessna A185F

C-GYXI

DATE: 8 July 1982 1745 MDT

OPERATION: Private - recreation

PLACE: Gladu Lake Alt 53/18N 113/57W

LOCALE: Tree-bordered lake 2300' asl

WEATHER: Wind calm vis 15+ sky clear temp 15°C

PILOT: Private

TOTAL HOURS:	900	ALL TYPES	40	ON TYPE
LAST 90 DAYS:	50	ALL TYPES	12	ON TYPE

DAMAGE: Destroyed

CASUALTIES: Crew: 1 serious; pass: 1 serious, 2 uninj.

OCCURRENCE: While climbing after take-off from a small lake, the engine of the float plane failed. The pilot attempted to turn back to the lake, but the aircraft stalled and impacted a wooded area causing heavy damage.

Subsequent examination determined that the fuel system was contaminated with water. The pilot was not aware of the existence of the header tank flush drain on the forward belly of the aircraft.

DATE: 11 July 1982 0100 MDT

OPERATION: Private - business

PLACE: 35 mi SW of Fort Simpson, NWT 61/19N 121/55W

LOCALE: Flat tree-covered area 500' asl

WEATHER: 32 mi NE: sky overcast with steady rain

PILOT: Private

TOTAL HOURS: 170 ALL TYPES 60 ON TYPE

LAST 90 DAYS: 20 ALL TYPES 20 ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 fatal; pass: 2 fatal

OCCURRENCE: The pilot was attempting a night VFR flight from a construction site to his home. Apparently he lost control of his aircraft while attempting to maintain visual contact with the ground in deteriorating weather. While being flown at low altitude, at low speed, the aircraft entered a spin from which the pilot was unable to recover.

The pilot had attempted initial pilot training through one agency, but had encountered difficulties; it was recommended he discontinue his attempts to achieve a private pilot's licence. He enrolled at another school, in another province, advertising licences and endorsements in the shortest possible time. He achieved a private pilot's licence, a night endorsement and a float endorsement and, later, a multi-engine endorsement.

The pilot purchased a twin engine aircraft, three months prior to this accident and crashed under similar circumstances. That time he spent three days at the crash site awaiting rescue. He purchased C-GWGA immediately after his first accident and flew it for a short period of time before having his final accident on 11 Jul 82.

DATE: 14 Jul 1982 0800 MDT

OPERATION: Private business

PLACE: 4 mi S of Tees Alt 52/24N 113/19W

LOCALE: Grass-covered strip 1800' by 30' 2920' asl

WEATHER: Wind SE 10 kt vis 15+ cloud 4000' broken temp 15°C

PILOT: Private

TOTAL HOURS: 450 ALL TYPES 400 ON TYPE

LAST 90 DAYS: 2 ALL TYPES 2 ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj.

OCCURRENCE: The pilot forgot to latch the cowling after checking the oil level. During the ground run the cowling did not open, but once airborne it began flapping due to the air pressure. The pilot reduced power, and initiated a left turn attempting to make it back to the airstrip. During the rapid descending turn, the aircraft landed heavily; it continued across the runway into a barley field where it overturned.

82-W20053

Bell 47G-B3-1

C-FOKA

DATE: 16 July 1982 1000 MDT
OPERATION: Specialty - application
PLACE: 14 mi S of Holden Alb 53/03N 112/15W
LOCALE: Flat cultivated field
WEATHER: Wind W 20 kt vis 15+ cloud 9000' scattered temp 26°C
PILOT: Commercial Rotorcraft
TOTAL HOURS: 700 ALL TYPES 700 ON TYPE
LAST 90 DAYS: 250 ALL TYPES 250 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 serious
OCCURRENCE: The pilot was practicing spray runs while watching a farm truck that was carrying his spray material.

During one of these practice runs, the aircraft ran into a powerline about 20 feet above the surface; the pilot saw the powerline too late to avoid it.

The aircraft was badly broken up but since the fuel tanks were fitted with breakaway couplings, the fuel was contained and fire did not break out. These crashworthy valves probably saved the pilot's life.

82-W20054

Cessna 172M

C-GWYU

DATE: 17 Jul 1982 0900 MDT
OPERATION: Specialty recreation
PLACE: 43 mi SW of Kluane YT 60/40N 139/35W
LOCALE: Ice glacier 7200' asl
WEATHER: Wind ENE 15 kt vis $\frac{1}{4}$ sky clear temp 3°C
PILOT: Airline Transport
TOTAL HOURS: 9800 ALL TYPES 80 ON TYPE
LAST 90 DAYS: 16 ALL TYPES 16 ON TYPE
DAMAGE: Substantial

CASUALTIES: Crew: 1 serious; pass: 1 serious; 1 minor
OCCURRENCE: While on a private sightseeing trip over the Tweedsmuir Glacier to Mount Logan in the Kluane National Park, the pilot and his two passengers encountered deteriorating weather. As his friends had never seen Mount Logan before, the pilot, despite being apprehensive about the weather, decided to push on. Eventually the weather deteriorated to the extent that further flight towards the mountain was inadvisable. The pilot turned back only to find that the weather had closed in behind him. With marginal climb performance available at his altitude of over 10,000 feet, and the fact that his single engine aircraft was not suitable for IFR flight, the pilot decided to let down to the glacier level in hopes he could get under the weather and fly down the glacier to safety. Down at the ice level, the pilot soon discovered that the weather extended right onto the ice. Now trapped and with no safe way to climb out of the mountain-ringed glacier, the pilot elected to carry out a precautionary landing. He flew around for

several minutes, looking for a relatively smooth area, only to find the glacier was criss-crossed with several crevasses. With the weather further deteriorating, the pilot picked out an area, selected full flap, cut the power and stalled the aircraft onto the ice. Upon touching down on the rough ice, the nose gear failed and the aircraft nosed over inverted.

The pilot and the front seat passenger, who were not using shoulder straps, received face and head injuries. The rear seat passenger received minor injuries. Three days later, the weather lifted and the three occupants were rescued. The E.L.T. could not be found and may have fallen down a deep crevasse. The pilot reported that the survival pack, while normally suitable for use, was inadequate for use on a glacier.

82-W20055

Grumman American AA-5

C-GRMY

DATE: 17 Jul 1982 1130 MDT

OPERATION: Private recreation

PLACE: Paintearth School Alt 52/06N 112/08W

LOCALE: Ditch-bordered paved road 2590' asl

WEATHER: Wind calm vis 15+ sky clear temp 20°C

PILOT: Private

TOTAL HOURS:	100	ALL TYPES	35	ON TYPE
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LAST 90 DAYS:	20	ALL TYPES	20	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 3 uninj.

OCCURRENCE: The pilot stated his infant daughter became airsick while they were circling a rural school to determine if anybody had arrived for a family reunion. He claimed this prompted him to attempt a landing on a hard-surfaced rural road, adjacent to the school; however, on final approach, the aircraft collided with a power line. It went partially out of control, and touched down on the side of the road with the left main wheel in a heavy stand of sweet clover. This contributed to the aircraft veering off the road through a ditch; it came to rest while sliding sideways in a soft cultivated field.

The power line was partially hidden.

82-W20057

Cessna 185

C-FTQH

DATE: 24 Jul 1982 0003 MDT

OPERATION: Private recreation

PLACE: Yellowknife Bay, NWT 62/28N 114/21W

LOCALE: Tree-bordered lake 525' asl

WEATHER: Wind calm vis 15+ cloud scattered temp 18°C

PILOT: Private

TOTAL HOURS:	700	ALL TYPES	500	ON TYPE
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LAST 90 DAYS:	25	ALL TYPES	25	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 3 minor; other: 1 fatal

OCCURRENCE: The pilot flew a straight-in approach onto glassy water. Within close proximity was an island which he was using as a reference. He saw a sailboat too late to avoid it; the aircraft struck the vessel, then came to rest inverted. The occupants of the aircraft had some difficulty exiting, but were able to cling to the inverted floats until rescued by witnesses.

It was reported that the people on the boat saw and heard the aircraft coming and were waving trying to attract its attention. One occupant was fatally injured when struck by a float.

The boat was difficult to detect because of the poor light conditions, the aircraft's nose high landing attitude, the colour and profile of the boat and its lack of lights.

The pilot's licence was invalid due to a lapsed medical, but this is not considered a factor.

82-W20058

Cessna A185E

C-FQLS

DATE: 26 Jul 1982 1820 MDT

OPERATION: Charter

PLACE: 10 mi E of Tathlina Lake NWT 60/39N 117/10W

LOCALE: Tree and swamp-bordered lake 900' asl

WEATHER: Wind SE 9 kt vis 10 sky clear temp 22°C

PILOT: Commercial

TOTAL HOURS:	600	ALL TYPES	250	ON TYPE
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LAST 90 DAYS:	120	ALL TYPES	110	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 minor; pass: 1 minor, 2 uninj.

OCCURRENCE: While in cruise flight the engine failed. During the landing attempt, the approach was slightly misjudged, and the aircraft landed short in some trees; it came to rest inverted.

The engine lost power because the induction air box shaft failed in unidirectional bending fatigue originating at the edge of the roll pin hole. The shaft supports the throttle/mixture bellcranks and permitted the mixture control to reduce the fuel flow to a point where the engine would no longer run. (LP 113/78 refers)

82-W20059

Hughes 269C

C-GJOJ

DATE: 27 Jul 1982 1340 MDT

OPERATION: Charter

PLACE: 18 mi NE of Whitecourt Alt 54/14N 115/21W

LOCALE: Flat tree-covered area 2300' asl

WEATHER: Wind W 8 kt vis 15+ sky clear temp 26°C

PILOT: Commercial Rotorcraft and Commercial

TOTAL HOURS:	1809	ALL TYPES	350	ON TYPE
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LAST 90 DAYS:	328	ALL TYPES	11	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 minor; pass: 2 minor

OCCURRENCE: On take-off from an area surrounded by trees, a circling procedure was used. As the turn was tightened to avoid a tree, the blades coned up and the helicopter crashed.

The pilot was probably suffering from fatigue, as he had flown 328 hours in the last 90 days. He had not flown this type of helicopter lately, as all his recent flying was done on a larger and more powerful machine.

Weather was not a factor with the possible exception of the temperature, 26°C at 2300' asl, which would reduce the available power.

This accident could probably have been avoided by landing the helicopter in the clearing at the first sign of climbing difficulty, or by ferrying the passengers out of the confined area one at a time.

82-W20062

Cessna A185F

C-GEQJ

DATE: 31 July 1982 1300 PDT

OPERATION: Private recreation

PLACE: Fort St John BC 56/15N 120/50W

LOCALE: Flat built-up area 2250' asl

WEATHER: Wind SW 5 kt vis 4 cloud 25000 broken temp 23°C

PILOT: Private

TOTAL HOURS:	500	ALL TYPES	200	ON TYPE
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LAST 90 DAYS:	35	ALL TYPES	35	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj.

OCCURRENCE: The engine failed about 5 minutes after take-off at a cruise altitude of 1200 ft. The pilot immediately carried out several emergency procedures but neglected to select on the electric fuel pump. Realizing that he would be unable to glide to the airport, he carried out a forced landing in a recently cultivated field. On touchdown, the soft earth caused the aircraft to flip over inverted.

The investigation revealed that the engine would not run unless the electric fuel pump was selected on. The engine driven fuel pump was removed for further analysis.

Although all discharge pressures were found to be slightly lower than normal, this in itself is not sufficient to cause a total engine failure. It is suspected that a speck of grit had temporarily lodged itself under the pressure relief valve resulting in the engine driven fuel pump failure.

82-W20063

Cessna U206F

C-GPGX

DATE: 31 Jul 1982 1925 PDT

OPERATION: Charter

PLACE: Muncho Lake BC 49/59N 125/46W
 LOCALE: Paved highway section 2500' by 30' 2500' asl
 WEATHER: Wind calm vis 25+ sky clear temp 21°C
 PILOT: Commercial
 TOTAL HOURS: 18000 ALL TYPES 200 ON TYPE
 LAST 90 DAYS: 200 ALL TYPES 60 ON TYPE
 DAMAGE: Substantial
 CASUALTIES: Crew: 1 serious
 OCCURRENCE: The pilot arrived over his destination in mountainous terrain at about 6000 feet AGL. He was to medevac two passengers to a hospital, and to do this required landing on a highway - a portion of which had been marked off by the RCMP. He reduced power, commenced a rapid right descending turn, and applied top rudder in order to better see the highway. The fuel selector was on the right tank. The engine failed during the descent, and the pilot immediately turned the electric fuel pump on; he selected the left fuel tank, but only obtained a momentary surge of power. He attempted a forced landing, but was unable to avoid a telephone wire crossing the highway; the aircraft struck the ground heavily in a nose-down attitude.

No discrepancies could be found in the airframe, engine or fuel system that would have caused the power loss. The 1974 Cessna U206F Owner's Manual warns against conducting prolonged uncoordinated flight, as it may result in engine stoppage. It is concluded that the pilot's uncoordinated rapid descending turn uncovered the fuel tank outlets, causing fuel starvation.

82-W20064

Cessna 177

C-FWXI

DATE: 7 Aug 1982 0628 MDT
 OPERATION: Private recreation
 PLACE: Fort McMurray Arpt Alt 56/39N 111/13W
 LOCALE: Flat paved area on airport 1211' asl
 WEATHER: Wind calm vis 15+ sky clear
 PILOT: Private
 TOTAL HOURS: 54 ALL TYPES 54 ON TYPE
 LAST 90 DAYS: 41 ALL TYPES 41 ON TYPE
 DAMAGE: Minor
 CASUALTIES: Crew: 1 uninj; Other (ground): 1 fatal
 OCCURRENCE: Prior to departing on a planned 3 hour trip, the pilot stopped in front of the Terminal Building. As he pulled up short of the walkway, his wife got out of the aircraft, shut the door behind her and walked forward, head down, into the propeller.

The recently qualified pilot did not attempt to shut down the engine nor did he brief his wife to exit towards the rear of the aircraft. He could have reduced the likelihood of an accident by turning the aircraft so the passenger's route was away from the propeller. This type of high-wing aircraft has no lift struts, making it possible to walk directly forward after disembarking.

DATE: 7 August 1982 1015 MDT

OPERATION: Private recreation

PLACE: Lac La Matre NWT 63/09N 117/16W

LOCALE: Dirt runway 2200' by 70' 890' asl

WEATHER: Wind NNW 7 kt vis 15+ cloud scattered temp 14°C

PILOT: Private

TOTAL HOURS: 101 ALL TYPES 37 ON TYPE

LAST 90 DAYS: 48 ALL TYPES 31 ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 minor; pass: 1 serious, 3 minor

OCCURRENCE: The pilot, after making two unsuccessful attempts to land, landed heavily, bounced several times and struck a plywood runway marker with the left main wheel. He initiated a baulked landing, became airborne and then noticed a windsock directly ahead. He pulled back hard on the control wheel; the aircraft pitched-up sharply, stalled and rolled inverted. The impact was in a vertical nose-down attitude.

The pilot was not familiar with this aerodrome. The runway was rough and uneven and this, together with his inexperience, contributed to his landing difficulties. Because he had approached high and fast on his first two attempts, he selected full flap for the third. He failed to retract the flaps on the overshoot thereby preventing a positive climb or airspeed increase, and, thus, was unable to clear the windsock without stalling.

The infant who was unrestrained on a rear passenger's lap, suffered fractured ribs and skull when she flew into and became lodged under the front seat.

DATE: 9 August 1982 1408 MDT

OPERATION: Specialty photography

PLACE: Ft McMurray Alt 56/39N 111/13W

LOCALE: Paved runway 6000' by 150' 1211' asl

WEATHER: Wind SE 12 G 18 kt vis 15 cloud scattered

PILOT: Commercial

TOTAL HOURS: 3300 ALL TYPES 2100 ON TYPE

LAST 90 DAYS: 270 ALL TYPES 250 ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 2 uninj.

OCCURRENCE: The pilot carried out a wheel landing in his tailwheel aircraft. He was unable to control a swerve to the right, and the aircraft ground looped and the left main gear collapsed.

The wind was gusting to 18 mph and was 30 degrees from the right. This is well within the capabilities of the aircraft.

The pilot did not use the recommended three point landing technique. Although more difficult, this would have provided more positive control in a crosswind.

82-W20067

Beech 58

C-GSWY

DATE: 11 August 1982 2015 MDT
OPERATION: Charter
PLACE: 7 mi NW of Norman Wells, NWT 65/26N 126/58W
LOCALE: Mountainous region 2600' asl
WEATHER: Wind NW 20 kt, vis 0, sky overcast with rain, temp 11°C
PILOT: Senior Commercial
TOTAL HOURS: 2450 ALL TYPES 43 ON TYPE
LAST 90 DAYS: 300 ALL TYPES 28 ON TYPE
DAMAGE: Destroyed
CASUALTIES: Crew: 1 fatal; pass: 3 fatal
OCCURRENCE: The pilot had departed Inuvik to pick up a passenger at Norman Wells. Approaching Norman Wells from the north on a VFR flight plan, the aircraft struck the face of a 2,700 foot ridge about 100 feet below the crest and just 7 miles from the destination.

Although the weather at Norman Wells was marginally suitable for VFR, it was established that there was a 500 ft cloud base and poor visibility in light rain in the valley north of the ridge. This base would have been about 1200 ft below the top of the ridge.

Radio communication was first established at 1950 MDT about 75 miles to the north, but 13 minutes later Norman Wells could not contact the aircraft, and at 2008 MDT only a faint transmission could be heard. The last aircraft transmission received 5 minutes later, was stronger, suggesting the pilot was now at a higher altitude.

The engines were developing power and the aircraft configuration was clean at impact. Analysis of the airspeed indicator shows that the impact speed was 134 knots. This is significantly less than cruise and indicates that the aircraft was in a climb.

The pilot had flown several times to Norman Wells VFR, and therefore was familiar with the area. It is surmised that he had been flying at a very low altitude in poor visibility in order to maintain visual contact with the ground. He apparently elected to pull up into the cloud in order to climb above the cloud layer, possibly because he was aware of the proximity of the ridge. During the climb he impacted the ridge just below the summit. (LP 281/82).

82-W20068

Cessna 180H

CF-UVF

DATE: 14 Aug 1982 1230 PDT

OPERATION: Private business

PLACE: Sikanni Chief Arpt BC 57/20N 123/40W

LOCALE: Gravel runway 6000' by 150' 3258' asl

WEATHER: Wind calm vis 15+ sky clear

PILOT: Private

TOTAL HOURS: 1500 ALL TYPES 500 ON TYPE

LAST 90 DAYS: 400 ALL TYPES 200 ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj.

OCCURRENCE: The pilot reported that the gear collapsed on touchdown.

Technical examination showed the upper attachment bolt had failed due to high-cycle, low-stress fatigue. It displayed characteristics of a previous overstress which allowed fatigue to initiate. These were consistent with a high load applied rearward on the gear leg, possibly a previous hard landing.

82-W20071

Cessna 185E

C-FZGN

DATE: 23 Aug 1982 1155 MDT

OPERATION: Private business

PLACE: Barons Alt 50/00N 112/56W

LOCALE: Flat cultivated area

WEATHER: Wind calm vis 40+ cloud 3000' broken temp 18°C

PILOT: Private

TOTAL HOURS: 350 ALL TYPES 100 ON TYPE

LAST 90 DAYS: 35 ALL TYPES 30 ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 1 uninj.

OCCURRENCE: After about thirty minutes of flight, six inches of propeller tip broke off due to fatigue cracking. A severe high frequency vibration resulted, and the pilot executed an immediate forced landing in a wheat field.

The vibration made instrument reading difficult and, in his haste, the pilot landed at an excessive speed without flaps. The aircraft was substantially damaged when it ran off the field into a perimeter road.

The fatigue cracking resulted from previous damage to the leading edge which had not been properly dressed.

83-W30002

Piper PA28-140

C-GQUT

DATE: 19 Jan 1983 1910 MST

OPERATION: Private recreation

PLACE: Brooks Arprt Alt 50/38N 111/55W
LOCALE: Paved runway 2800' by 75' 2490' asl
WEATHER: Wind NE 5 kt vis 15+ sky clear temp -5°C

PILOT: Private

TOTAL HOURS:	160	ALL TYPES	140	ON TYPE
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LAST 90 DAYS:	8	ALL TYPES	8	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj.

OCCURRENCE: After the return flight from Edmonton, the pilot joined the circuit for a night landing. Finding himself high on final, he chopped power and descended until landing some 515 feet past the threshold. The aircraft bounced about 6 feet into the air; the pilot applied up elevator and it hit again about 400 feet further down the runway. During the next bounce, the nose dropped and the aircraft landed heavily on the nose and propeller.

The pilot left his home at 0545 that morning after 5 hours sleep. He attended meetings in Edmonton all day and then returned that evening, so by the time of the accident, he had been active for 14 hours. Although he was aware of the correct procedure to recover from a poor approach and landing, he was fatigued and did not overshoot because of his reluctance to complete another circuit.

83-W30006

Bell 206B

C-GTDA

DATE: 23 Mar 1983 1130 MST

OPERATION: Private business

PLACE: 15 mi E of Lac la Biche Alt 54/45N 111/34W

LOCALE: Snow-covered road

WEATHER: Wind calm vis 10 cloud 1500' overcast temp -4°C

PILOT: Commercial Rotorcraft

TOTAL HOURS:	5758	ALL TYPES	2400	ON TYPE
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LAST 90 DAYS:	118	ALL TYPES	118	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 1 uninj.

OCCURRENCE: In preparation for landing, the pilot established a high hover over the landing site to allow blowing snow to dissipate. He then began to move rearwards so the final descent could be accomplished with some forward speed. While moving rearward, the tail rotor struck an unmarked single strand powerline. A hover autorotation was carried out before complete tail rotor thrust was lost.



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synopses
of

AIRCRAFT ACCIDENTS

-civil aircraft in Canada

AVIATION SAFETY INVESTIGATION DIVISION
AVIATION SAFETY BUREAU

Issue 2

1984

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725
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SYNOPSSES OF ACCIDENTS

The Aviation Safety Investigation Division - an agency of Transport Canada - prepares this publication from preliminary information stored in electronic data processing equipment. This system uses abbreviations and short narratives; a guide to the synopsis form is on the following page.

Your attention is drawn to the fact that the prime intent of this publication is the dissemination of aircraft accident information to promote the prevention of recurrence. Often, interested parties employ this information for purposes other than this, and in doing so, find the information incomplete or delayed. Such persons should be aware that investigations are for the benefit of Government agencies and the aviation community in their attempt to promote aviation safety.

This publication is also
available in French.

Cette publication est également
disponible en version française.

A limited number of copies of
this publication are retained
and are available from:

On peut obtenir des exemplaires de
la présente publication en nombre
limité auprès de l'organisme
suivant:

Transport Canada
Aviation Safety Investigation
Aviation Safety Bureau
Transport Canada Building
Ottawa, Ontario
K1A 0N8

Transports Canada
Enquêtes sur la sécurité aérienne
Bureau de la sécurité aérienne
Edifice Transports Canada
Ottawa, Ontario
K1A 0N8

This publication contains synopses of aircraft occurrences in Canada to Canadian and foreign registered aircraft, and Canadian registered aircraft having accidents in foreign countries. Aircraft of Canadian registry having an accident in the United States are reported in a similar document "Aircraft Accident Reports - Brief Format" published by the U.S. Bureau of Aviation Safety of the National Transportation Safety Board. Copies are available from:

U.S. Department of Commerce
National Technical Information Service
Springfield, Va. 22161

EXPLANATORY NOTES

Definition of "Accident"

"Aircraft accident", means an occurrence associated with the operation of an aircraft that takes place between the time the person boards the aircraft with the intention of flight until such time as all persons have disembarked in which:

- (a) any person suffers death or serious injury as a result of being in or upon the aircraft or by direct contact with the aircraft or anything attached thereto; or
- (b) the aircraft receives substantial damage or is destroyed.

(Air Regulations, Part 1, Section 101).

Accident Report Number

This number identifies the occurrence; any queries to Transport Canada should carry this reference. The first letter denotes the Region of responsibility; usually this is the Region of occurrence. The first numeral is the year number in each decade; for example, 1970 appears as a zero, 1971 as 1, and so on. Accidents other than collisions and occurrences to foreign aircraft will be numbered from 001-799 for each year. Accidents involving a collision between two or more aircraft in flight or preparing for flight will be assigned to each aircraft involved. Accidents in Canada to foreign registered aircraft will be assigned numbers from 901-999.

Aircraft Make and Model

The top line of the report contains the type of aircraft involved a brief description of this aircraft, and under "Reg" the registration letters.

Operation

The categories used are those in the Canadian Transport Commission's Directory of Canadian Commercial Air Services.

Damage

One of the definition criteria for "accident" is degree of damage. "Substantial damage means damage or structural failure that adversely affects the structural strength, performance or flight characteristics of an aircraft and that would normally require major repair or replacement of the affected component, except that engine failure, damage limited to an engine, bent fairings or cowlings, dented skin, small punctured holes in the skin or fabric, damage to propeller blades, damage to tires, engine accessories, brakes or wingtips are not deemed to be substantial damage.

(Air Navigation Order, Series VIII, No.1).

Place

Appearing first is the nearest gazetted place followed by the latitude and longitude.

Locale

The pertinent terrain, landing surface, and obstructions. Terrain/airfield altitude is given in feet above sea level (asl). Dimensions are in feet.

Weather

The basic statement includes phenomena at the time and location of the occurrence. Although plain language is used as much as possible some codification may be necessary. The local weather office will be able to answer enquiries on the abbreviations which are too numerous to list here. Sky condition is given in feet above ground, visibility (vis) in miles, temperatures in degrees Celsius unless otherwise noted, wind direction at the nearest cardinal compass point and the windspeed in miles per hour.

Pilot

The licence category is given first, followed by the experience of the pilot-in-command. Blanks signify information not available.

Casualties

Degree of severity is described by the words: killed, serious, minor uninjured (uninj). Individuals are identified as either crew, passengers (pass), or if neither of these two categories, identification of the individual will be given in the narrative. Note that uninjured persons are included in casualties to establish the number of persons involved in the occurrence.

Description of the Occurrence

A brief narrative contains only the elements essential to an understanding of the occurrence, formal assignment of cause(s) is not included.

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83-A30018	C-GMVF	5	82-Ø25002	None	25	82-P25004	None
82-C20078	C-GYJI	6	83-Ø30007	C-GQJS	25	82-P25006	None
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82-A20026

de Havilland DHC-3

C-FEYY

DATE: 12 Oct 1982 1205 ADT

OPERATION: Charter

PLACE: Lixi Pond Lab Nfl 52/04N 58/33W

LOCALE: Water area 2½ miles long

WEATHER: Wind WSW vis 15+ cloud 5000' scattered

PILOT: Commercial

TOTAL HOURS: 9291 ALL TYPES 6000 ON TYPE

LAST 90 DAYS: 305 ALL TYPES 299 ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 6 uninj.

OCCURRENCE: During landing, the right float struck a submerged rock; the right float strut then failed and the float rolled outboard to lie under the wing.

Laboratory analysis found extensive evidence of stress corrosion precracking in the fracture face of the failed strut, which had significantly weakened the assembly.

The manufacturer had issued a Service Bulletin recommending struts be inspected for cracks every twelve months. It had been almost 4 years since this had been accomplished in this aircraft.

82-A20029

Champion 7GCAA

C-FARR

DATE: 9 Dec 1982 1515 NST

OPERATION: Private recreation

PLACE: Charlottetown Lab Nfl 52/46N 56/08W

LOCALE: Tree-covered hills 50' asl

WEATHER: Wind NW 15 kt temp -15°C

PILOT: Commercial

TOTAL HOURS: 6200 ALL TYPES 200 ON TYPE

LAST 90 DAYS: 200 ALL TYPES 100 ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj.

OCCURRENCE: The pilot landed on a small lake, shut down to drop off his passenger, then headed for an adjacent lake where he could tie down his aircraft. On climb-out, at approximately 300 feet AGL, the engine began to run rough and lose power; it stopped completely when the pilot applied carburettor heat. He immediately set up for a forced approach and tried to stretch the glide, but the aircraft struck small trees on a creek bed, about 100 feet short of the second pond.

The engine was examined and no faults were found. Considering the weather at the time of occurrence, it is believed that the engine failed due to carburettor icing.

83-A30002

Bell 206B

C-FKOM

DATE: 7 Feb 1983 1400 EST

OPERATION: Charter

PLACE: Merigomish NS 45/41N 62/18W

LOCALE: Water area at sea level

WEATHER: Wind NW vis 15 sky clear

PILOT: Commercial Rotorcraft

TOTAL HOURS:	1115	ALL TYPES	1065	ON TYPE
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LAST 90 DAYS:	Unknown	ALL TYPES	Unknown	ON TYPE
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DAMAGE: Destroyed

CASUALTIES: Crew: 1 uninj; pass: 2 uninj

OCCURRENCE: The helicopter was engaged in seal pup tagging operations - the pilot and two Fisheries personnel were on board. While flying downwind at about 50 feet along the shore they spotted a seal, and the pilot started a tight right turn for an into-wind landing on the beach. The pilot reported that he experienced a power reduction at this point and the aircraft touched down near the shore in about 4 feet of water. The high swell overturned the aircraft and the main rotor blades separated. All three escaped uninjured with some difficulty due to the swells and the aircraft's attitude.

The engine was dismantled and examined in detail but no cause for the reported power loss could be found. Some components could not be tested due to after impact corrosion damage.

The investigation concluded that the accident was not caused by a power loss, but by the combination of adverse factors present, including the strong quartering tailwind, low altitude, cliffs bordering the beach, facing a tighter than usual turn, high swells and the loss of visual reference on turning out to sea in a nose high attitude. All of these likely combined to produce an inadvertent early touchdown. (LP 87/83, 107/83)

83-A30003

Piper PA22-160

C-FLXC

DATE: 25 Mar 1983 1324 AST

OPERATION: Private business

PLACE: Sussex NB 45/42N 65/31W

LOCALE: Gravel runway 2900' by 70'

WEATHER: Wind NE 15G25 kt vis 15+ sky clear temp -5°C

PILOT: Private

TOTAL HOURS:	700	ALL TYPES	405	ON TYPE
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LAST 90 DAYS:	7	ALL TYPES	5	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj;

OCCURRENCE: The pilot landed downwind and downhill. At the end of the strip he intentionally attempted a ground loop. The left wingtip hit the ground and the aircraft flipped over on its back.

There was no wind sock on the strip, and the pilot apparently misread the wind direction using smoke 3 miles away, as reference.

83-A30004

Piper PA28-140

C-FKKJ

DATE: 20 May 1983 0900 ADT

OPERATION: Private recreation

PLACE: Berwick NS 45/02N 64/48W
LOCALE: Flat grass-covered area
WEATHER: Wind light vis 15+ cloud 8500' broken
PILOT: Commercial
TOTAL HOURS: 1585 ALL TYPES 200 ON TYPE
LAST 90 DAYS: 45 ALL TYPES 15 ON TYPE
DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; Pass: 2 uninj.

OCCURRENCE: The pilot was taking off from a grass strip. He reported that on the take-off run, when he felt the aircraft was not accelerating properly, he elected to abort. The decision however, was too late and the aircraft overran into some small trees. The take-off had been attempted with the carburettor heat selected to the "hot" position - this seriously degraded engine performance.

83-A30005

Dromader PZL M18

C-GMVL

DATE: 21 May 1983 1915 ADT
OPERATION: Specialty application
PLACE: Dunphy Airstrip NB 46/38N 65/52W
LOCALE: Paved private strip
WEATHER: Wind calm vis 15+ sky clear
PILOT: Commercial
TOTAL HOURS: 1410 ALL TYPES 40 ON TYPE
LAST 90 DAYS: 30 ALL TYPES 20 ON TYPE
DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj.

OCCURRENCE: The pilot had waited thirty minutes for departure clearance, during which time the engine was run at low power. Although he tried to keep the spark plugs clear by sporadically increasing engine power, during the first take-off, he experienced engine back-firing and a slower than normal acceleration rate. He rejected the take-off, and was able to stop the aircraft in the runway remaining.

The pilot returned to the take-off end of the runway, completed another run-up, and was satisfied the engine was operating normally. He began another take-off, but again experienced back-firing and loss of power. This time he was unable to bring the aircraft to a stop, and it overran the runway by fifty feet coming to rest in a washed-out area.

This particular aircraft has a history of spark plug fouling even when the aircraft has not been flown for a short period eg. overnight.

There was also a noticeable lack of operational control on the part of the operator. For example, the pilot, although young and inexperienced, was the chief pilot for this particular operation. In addition, the company lacks a system of providing directives to aid pilots in their decision-making processes.

The overrun area of the runway had been allowed to deteriorate due to erosion. Had the area been maintained properly, it is unlikely the aircraft would have been damaged.

DATE: 26 May 1983 1045 ADT

OPERATION: Specialty application

PLACE: Mactaquac NB 45/58N 66/49W

LOCALE: Paved highway

WEATHER: Wind calm vis 12 cloud 1600 scattered temp 6°C

PILOT: Commercial licence

TOTAL HOURS:	1900	ALL TYPES	Unknown	ON TYPE
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LAST 90 DAYS:	Unknown	ALL TYPES	Unknown	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj.

OCCURRENCE: The aircraft was at about 1500 feet agl when the engine began to run rough. The application of carburettor heat smoothed the engine for a short period, but eventually it ran rough again and lost power. Unable to maintain altitude, the pilot elected to make a forced landing on a main highway.

On roll-out, the right wing contacted a mail box support, swerving the aircraft left into a ditch.

Investigation revealed that the air duct tubing to the carburettor heat muff had become detached so that carburettor heat application was not effective. An accompanying aircraft in formation had experienced carburettor icing but had carried on to destination and landed safely.

83-A30011

PZL Mielec M18

C-GMVF

DATE: 26 Jun 1983 1936 ADT

OPERATION: Specialty control

PLACE: Lorne NB 47/52N 66/09W

LOCALE: Rolling tree-covered area

WEATHER: Wind E 15 kt vis 15 cloud scattered temp 18°C

PILOT: Commercial licence

TOTAL HOURS:	3000	ALL TYPES	300	ON TYPE
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LAST 90 DAYS:	70	ALL TYPES	25	ON TYPE
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DAMAGE: Destroyed

CASUALTIES: Crew: 1 minor.

OCCURRENCE: The pilot was on a water bombing mission in support of a fire fighting operation. The third drop of the day was made at a low altitude of around 50 feet agl, above some trees. The pilot was lining up for his final run-in, when at the last moment, the fire controller directed him to the right of the blaze. To manoeuvre to the new drop zone necessitated an abrupt heading change of 60 degrees and a bank angle of up to 45.

The pilot reported that when he lost control of the aircraft, it seemed to fall out of the turn; the right wing tip hit some trees.

The stall speed of this aircraft is 78 mph. This would increase rapidly to the operating speed of 105 mph in an abrupt turn. The pilot may have had difficulty recognizing this, resulting in the

stall and loss of control. Everything happened so quickly and at such low altitude, that the pilot was unable to jettison the load or effect a recovery.

83-A30014

Cessna 172M

C-GDNL

DATE: 4 Jul 1983 1715 ADT

OPERATION: Flying club recreation

PLACE: St. Quentin NB 47/31N 76/25W

LOCALE: Grass and gravel runway 2400' by 100' 875' ASL

WEATHER: Wind gusty and variable vis 15+ sky clear temp 30°C

PILOT: Private licence

TOTAL HOURS:	71	ALL TYPES	15	ON TYPE
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LAST 90 DAYS:	23	ALL TYPES	15	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; Pass: 3 uninj.

OCCURRENCE: The flight was intended as a sightseeing trip for friends.

During the take-off roll, the initial portion of the runway was protected from the wind by trees bordering the strip. As the aircraft cleared the sheltered area, the pilot failed to compensate for the cross-wind; he lost directional control and skidded left.

Realizing that an aborted take-off was required, he finally closed the throttle and applied the brakes, but not in time to prevent the nose gear from contacting a shallow drainage ditch - the aircraft nosed over coming to rest on its back. The pilot lacked experience in grass field and cross-wind operations.

83-A30016

Piper PA25-235

C-GOUN

DATE: 25 Jul 1983 1110 ADT

OPERATION: Private spray

PLACE: 1 mile W of Upper Woodstock NB 46/10N 67/34W

LOCALE: Rolling cultivated area

WEATHER: Wind WNW 5 kt cloud 1200' broken temp 20°C

PILOT: Commercial licence

TOTAL HOURS:	1800	ALL TYPES	1400	ON TYPE
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LAST 90 DAYS:	107	ALL TYPES	47	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj.

OCCURRENCE: The spray run was carried out while the light tail wind, temperature and humidity were all increasing. The aircraft was near its all-up weight, as it had been refuelled and loaded with liquid fungicide. All of these factors contributed to the tail wheel colliding into a potato crop. The aircraft remained upright, but lost its main gear and other parts.

83-A30018

Grumman G-164B

C-GMVY

DATE: 5 Aug 1983 0930 ADT

OPERATION: Specialty application

PLACE: Whim Road PEI 46/08N 62/36W

LOCALE: Flat grass-covered runway

WEATHER: Wind S 13 kt vis 15+ sky clear

PILOT: Commercial licence				
TOTAL HOURS:	3000	ALL TYPES	2000	ON TYPE
LAST 90 DAYS:	80	ALL TYPES	80	ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj.

OCCURRENCE: When the pilot took off to the south there was no wind. On returning to land one hour later, he assumed conditions hadn't changed. There was no wind sock available for confirmation.

Since there was an aircraft on the runway awaiting take-off, he elected to land to the north. At this time, the wind was from the south at 10-15 MPH. After landing long, the pilot realized he might not be able to stop in time; he veered off to the right to avoid hitting the other aircraft, and came to rest in some trees. Heavy dew on the grass prevented effective braking.

82-C20078

Cessna 188B

C-GYJI

DATE: 14 Jul 1982 0600 MDT
 OPERATION: Specialty application
 PLACE: 8 miles S of Duval Sas 51/09N 105/00W
 LOCALE: Tree and ditch-bordered gravel road
 WEATHER: Wind SE 8 kt vis 15+ sky clear temp 10°C

PILOT: Senior Commercial

TOTAL HOURS:	4850	ALL TYPES	150	ON TYPE
LAST 90 DAYS:	Unknown	ALL TYPES	60	ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj.

OCCURRENCE: The pilot of the spray plane was using a barricaded section of a gravel road for take-off and landing. He decided to abort his take-off as he was unsure if the aircraft would become airborne before reaching trees bordering the road. Before the aircraft could be stopped, the right wing collided with a tree; the machine veered into a ditch beside the road. The pilot had not allowed himself sufficient distance for the take-off when estimating the length of runway required.

82-C20092

Cessna 188

C-FUIS

DATE: 2 Aug 1982 1253 MDT
 OPERATION: Private spray
 PLACE: near Dafoe Sas 51/56N 104/34W
 LOCALE: Flat cultivated area
 WEATHER: Not significant

PILOT: Commercial

TOTAL HOURS:	Unknown	ALL TYPES	Unknown	ON TYPE
LAST 90 DAYS:	Unknown	ALL TYPES	Unknown	ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj.

OCCURRENCE: The pilot reported the left landing gear leg collapsed during the landing roll. Examination determined the three upper attachment bolts had failed in overload. The damage was indicative of a landing with drift to the left. (LP 243/82)

82-C20102

Bell 47G2

C-FKNC

DATE: 28 Aug 1982 0930 CDT

OPERATION: Commercial non-revenue

PLACE: Dryden Ont 49/50N 92/45W

LOCALE: Grass-covered area on airport

WEATHER: Wind calm vis 15 sky clear

PILOT: Commercial

TOTAL HOURS: 3250 ALL TYPES 40 ON TYPE

LAST 90 DAYS: Unknown ALL TYPES Unknown ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj.

OCCURRENCE: While air-taxiing, the pilot reportedly felt a severe vibration and lost tail rotor control. He landed the aircraft; on touchdown it rocked on its floats enough that the main rotor blades cut through both the upper tubing of the tail boom and the aft short shaft.

One-half of the universal joint and a portion of the shaft were never found. Laboratory examination of the other damaged parts indicated that all had failed in an instantaneous overload mode. No cause was found for the reported vibration.

82-C20111

Beech 95-B55

C-GWQQ

DATE: 10 Oct 1982 0500 MDT

OPERATION: Charter

PLACE: Stony Rapids Sas 59/15N 105/50W

LOCALE: Gravel runway 4400' by 100' 820' asl

WEATHER: Wind calm vis 600' sky obscured

PILOT: Senior Commercial

TOTAL HOURS: 2400 ALL TYPES 250 ON TYPE

LAST 90 DAYS: 90 ALL TYPES 80 ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 3 uninj.

OCCURRENCE: The pilot was conducting a medevac flight from an unlit aerodrome during the hours of darkness. Car headlights were used to illuminate the runway, but visibility was restricted by a layer of ground fog. Shortly after lift-off, the aircraft collided with trees on the left side of the runway; the aircraft then impacted the ground in a level attitude and slid to a stop.

Investigators concluded there was insufficient visual reference for the pilot to keep the aircraft over the runway during the initial climb-out; as a result, the aircraft drifted left into the trees. It is possible that a lower than normal climb rate may have contributed to the collision. The pilot had not removed all the frost on the wings prior to flight.

83-C30005

Cessna 310Q

C-GPFA

DATE: 28 Jan 1983 0725 MST

OPERATION: Charter

PLACE: Tisdale Sas 52/50N 104/04W
LOCALE: Ice-covered runway 2500' by 75' 1525' asl
WEATHER: Wind calm vis 4 to 5 mi cloud 600' overcast
PILOT: Commercial

TOTAL HOURS:	727	ALL TYPES	106	ON TYPE
LAST 90 DAYS:	154	ALL TYPES	unknown	ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 2 uninj;

OCCURRENCE: The crew received the weather conditions by studying the hourly sequences and the forecast. On the basis of this information they decided to make the trip.

The departure and enroute weather were under IFR conditions. The crew received a clearance to the airport and when descending through cloud, encountered icing. On the first approach there was still some ice on the windscreen which hampered cockpit forward visibility. The visibility outside was 4 to 5 miles and the pilot decided to conduct a visual approach. On the second attempt, the aircraft was not lined up properly so an overshoot was carried out.

On the third approach the touchdown airspeed was slightly higher than normal. On the roll-out, the aircraft drifted left on the runway and the left main gear encountered some snow along the edge; the aircraft was dragged to the left until the nose gear hit deep snow and then collapsed.

Freezing rain had passed through the area 12 hours earlier, leaving a layer of ice on the runway; sometime later it had snowed. As a consequence, there was little or no braking action. There were no company facilities or qualified ground personnel available to warn the crew of the situation.

83-C30006

Cessna 170B

CF-CZJ

DATE: 28 Jan 1983 1500 CST

OPERATION: Private recreation

PLACE: Erickson Man 50/30N 99/55W

LOCALE: Rolling snow-covered area

WEATHER: Wind NW 8 kt vis 6 cloud 1000' overcast temp 1°C

PILOT: Private

TOTAL HOURS:	1200	ALL TYPES	800	ON TYPE
LAST 90 DAYS:	40	ALL TYPES	40	ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 2 uninj.

OCCURRENCE: The pilot was to take two passengers on a local sightseeing flight. He planned to take off from a 1900 foot long snow-covered farm field. Although not overweight, the aircraft would not accelerate in the uphill, wet conditions.

The pilot aborted his first take-off. On the second attempt, while acceleration improved, he still could not attain flying speed; once again the take-off was aborted.

While executing a sharp right turn to avoid the end of the field, the left main landing gear leg failed. The aircraft rolled and tipped on its nose.

83-C30007

Piper PA28-140

C-GPHS

DATE: 30 Jan 1983 1200 EST
OPERATION: Flying Club training
PLACE: Kakabeka Falls Ont 48/25N 89/36W
LOCALE: Snow-covered strip 2120' by 100' 1000' asl
WEATHER: Wind NW 10 vis 15 cloud 3000' overcast with light snow
PILOT: Commercial
TOTAL HOURS: 2200 ALL TYPES 900 ON TYPE
LAST 90 DAYS: 200 ALL TYPES 100 ON TYPE
DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj, 1 minor

OCCURRENCE: The student pilot set up for a practice precautionary approach, with no intention of landing on the unmaintained strip. The approach was continued to a point approximately 300 ft short of the threshold and 15 ft AGL, when the instructor called for the overshoot. The student responded by applying full power, removing the carburettor heat, and completely retracting the flaps. Insufficient altitude and airspeed were available to allow recovery from the sudden loss of lift; the aircraft contacted the deep snow covering the strip and pitched nose-down. The student, who was not wearing a shoulder harness, received minor facial injuries.

83-C30008

Cessna A185F

C-GVLH

DATE: 31 Jan 1983 1445 CST
OPERATION: Charter
PLACE: Kasba Lake NWT 60/02N 102/00W
LOCALE: Snow-covered lake
WEATHER: Wind N 10 kt vis 2 cloud 3000' overcast temp -35°C
PILOT: Commercial
TOTAL HOURS: 1270 ALL TYPES 70 ON TYPE
LAST 90 DAYS: 70 ALL TYPES 70 ON TYPE
DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 1 uninj.

OCCURRENCE: The pilot stated that during a landing attempt in blowing snow, he allowed the aircraft to touch down prematurely. The aircraft bounced off the runway and settled onto the snow.

The left gear leg snapped as a result of an instantaneous overload failure.

83-C30009

Cessna 172H

CF-VXJ

DATE: 12 Feb 1983 1800 MST
OPERATION: Private recreation
PLACE: Grayson Sas 50/43N 102/39W
LOCALE: Snow and slush-covered runway
WEATHER: Wind SSW 22 kt vis 15+ sky clear temp 2°C

PILOT: Private
TOTAL HOURS: 86 ALL TYPES 13 ON TYPE
LAST 90 DAYS: 13 ALL TYPES 13 ON TYPE
DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 3 uninj.

OCCURRENCE: As the snow and slush covered runway had a powerline on the approach end, the pilot landed long. The pilot stated that he intentionally steered into a snow bank at low speed, as he was fast approaching the end of the runway. The aircraft came to rest inverted.

83-C30010

Piper PA28-140

C-GEGF

DATE: 12 Feb 1983 1045 MST

OPERATION: Private recreation

PLACE: Luseland Sas 52/05N 109/24W

LOCALE: Snow-covered area beside runway

WEATHER: Wind WSW 13 kt vis 15 sky clear temp 4°C

PILOT: Commercial

TOTAL HOURS: 2300 ALL TYPES 1000 ON TYPE

LAST 90 DAYS: 2 ALL TYPES 2 ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj.

OCCURRENCE: On final approach to the snow-covered runway, the pilot noted runway edge markers, and a parallel ridge of snow which he incorrectly assumed was the other side of the runway. He landed in one foot of snow beside the runway, breaking the nose gear.

The pilot indicated that the lack of contrast in the all-white conditions contributed to the identification problem.

83-C30011

Taylorcraft F-19

C-GQJB

DATE: 13 Feb 1983 1145 MST

OPERATION: Private business

PLACE: near Meadow Lake Arpt Sas 54/08N 108/31W

LOCALE: Flat compact area 1576' asl

WEATHER: Wind calm vis 5 cloud 4500' overcast

PILOT: Private

TOTAL HOURS: 550 ALL TYPES 400 ON TYPE

LAST 90 DAYS: 25 ALL TYPES 25 ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; Pass: 1 uninj.

OCCURRENCE: When freezing rain was encountered five miles from destination, the pilot opted to continue his approach despite the accumulation of ice on the windshield. Rapid ice build-up on the lift surfaces caused the right wing to stall, ten feet above the ground. The aircraft landed heavily, short of the airport, and the wing tip, gear and prop were substantially damaged.

The pilot may have been able to consider discontinuing his flight by selecting a suitable field for his ski equipped aircraft; this would have avoided the prolonged exposure to freezing rain.

83-C30014

Douglas DC3C

C-FBKX

DATE: 15 Feb 1983 1257 CST

OPERATION: Charter

PLACE: 20 mi NW of Shamattawa Man 55/50N 92/25W

LOCALE: Rolling tree-covered area 550' asl

WEATHER: Wind S 5 kt vis 10 cloud 1500' overcast temp -3°C

PILOT: Airline Transport

TOTAL HOURS: 18000 ALL TYPES 6500 ON TYPE

LAST 90 DAYS: 45 ALL TYPES 45 ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 2 serious, 1 minor; pass: 1 minor

OCCURRENCE: While in cruise at 700 ft. AGL, the left engine backfired. It continued to run at reduced power for a short time, then failed. The pilot feathered the left propeller, but the overloaded aircraft would not maintain altitude; it contacted trees at minimum flight speed, turned through 180 degrees after ground impact, and slid approximately 250 ft. before coming to rest in deep snow and scrub pine.

Investigation revealed that a connecting rod had initially broken, and it flailed about while the engine was operating at reduced power. The resultant damage eventually caused the master rod to break; it flailed, completely destroying the front power section.

The passenger suffered minor injuries when a bladder containing diesel fuel pinned his legs. It had been tied down for the flight, but the restraint system did not withstand the crash forces.

83-C30015

Cessna 172

C-FNIX

DATE: 20 Feb 1983 1700 MST

OPERATION: Private recreation

PLACE: 2 mi W of Tessier Sas 51/48N 107/28W

LOCALE: Flat snow-covered area

WEATHER: Wind SE light vis 15+ sky clear temp 4°C

PILOT: Private

TOTAL HOURS: 148 ALL TYPES 85 ON TYPE

LAST 90 DAYS: 5 ALL TYPES 5 ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 2 uninj.

OCCURRENCE: During take-off, the aircraft began to drift left. The take-off was aborted, but the pilot was unable to stop the aircraft before it collided with a ridge of snow. The nose wheel collapsed and the aircraft swung 90° to the left.

83-C30016

Enstrom F28A

C-GJUK

DATE: 12 Mar 1983 1445 EDT

OPERATION: Specialty training

PLACE: 4 mi NW of Thunder Bay Ont 48/24N 89/21W
 LOCALE: Rolling compact area 727' asl
 WEATHER: Wind ESE 2 kt vis 10+ cloud 4000' scattered temp 5°C
 PILOT: Commercial Rotorcraft
 TOTAL HOURS: 600 ALL TYPES 8 ON TYPE
 LAST 90 DAYS: 10 ALL TYPES 8 ON TYPE
 DAMAGE: Substantial
 CASUALTIES: Crew: 2 uninj.

OCCURRENCE: Approaching to land, the student established a hover but allowed the RPM to fall off. As he was due to go solo shortly, the instructor allowed the student to retain control to see if he would take proper corrective action. When the student allowed the RPM to degrade further, the instructor took control, and flew the helicopter down an embankment in an attempt to get the RPM back. Nearing low ground, he attempted to pull up over a snow fence, but struck it with the tail boom. The helicopter hit a road, bounced, and swung to the right into some trees; it came to rest on its left side.

83-C30017

Cessna A185F

C-GYBJ

DATE: 11 Mar 1983 1700 CST
 OPERATION: Charter
 PLACE: Cat Lake Ont 51/40N 91/50W
 LOCALE: Flat ice-covered strip 3000' by 100'
 WEATHER: Wind SW 10 kt vis 20 sky clear temp -15°C
 PILOT: Senior Commercial
 TOTAL HOURS: 5000 ALL TYPES 2000 ON TYPE
 LAST 90 DAYS: 200 ALL TYPES 100 ON TYPE
 DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 1 uninj.

OCCURRENCE: The pilot was landing at an ice-covered strip to pick up a passenger. The landing was normal, however, when the tail was lowered on the roll-out, directional control was lost. The aircraft swung to the left and slid sideways to the right; the right ski hit an ice ridge causing the right gear leg to fail.

The previous day, a weather system bringing freezing rain had passed through the area, leaving the runway ice-covered. There was no way the pilot could be warned about this condition, as there were no communications facilities at the strip. In addition, the pilot was aware that the tailwheel unlocking mechanism had been wired open, allowing the wheel to fully swivel. Thus, when he lowered the tail, he was confronted with the icy runway, cross-wind conditions and a casting tail wheel.

83-C30019

Aeronca 7EC

C-FLOK

DATE: 11 Mar 1983 1000 CST
 OPERATION: Private recreation
 PLACE: Dolomite Lake Man 54/27N 100/33W
 LOCALE: Snow-covered lake
 WEATHER: Wind calm vis 15+ sky clear temp -10°C

PILOT: Private
TOTAL HOURS: 205 ALL TYPES 90 ON TYPE
LAST 90 DAYS: 1 ALL TYPES 1 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj.
OCCURRENCE: Although he was unaware of the snow-surface conditions, the pilot did not visually inspect the landing area before touchdown. The aircraft skis broke through the surface crust then contacted a snow-drift, causing the aircraft to flip inverted.

83-C30020 Cessna 310Q C-QQRV

DATE: 21 Mar 1983 0713 MST
OPERATION: Charter
PLACE: Tisdale Arpt Sas 52/50N 104/04W
LOCALE: Paved runway 2500' by 75' 1225' asl
WEATHER: Wind calm vis 15+ sky clear temp -26°C
PILOT: Airline Transport
TOTAL HOURS: 3400 ALL TYPES 1000 ON TYPE
LAST 90 DAYS: 75 ALL TYPES 75 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 2 uninj.
OCCURRENCE: During final approach, the pilot maintained a faster than normal speed and the aircraft touched down about 800 feet from the threshold. The pilots stated that, following the landing, the brakes did not slow the aircraft. It proceeded into the overrun area into a hard snowbank. The nosewheel broke through the snow and the nose landing gear collapsed.

Three days prior to the accident, maintenance had been done on the brake system. A review of the work, and a thorough inspection of the brake system, revealed no maintenance or mechanical faults which would have resulted in brake failure. Although the pilots reported that, on departure, the brakes were "spongy" and had to be pumped to hold the aircraft for run-up, there had been no apparent problems on the previous day.

It is possible that air in the brake system may have caused a reduction in braking efficiency. Had the pilot maintained proper approach speeds and touched down closer to the threshold, a successful landing may have resulted.

83-C30021 Taylorcraft BC12D C-FQXL

DATE: 19 Mar 1983 1315 CST
OPERATION: Private recreation
PLACE: Sandy Lake Ont 53/04N 93/20W
LOCALE: Flat snow-covered area
WEATHER: Wind WNW 10 kt vis 15+ sky clear temp -6°C
PILOT: Private
TOTAL HOURS: 430 ALL TYPES 400 ON TYPE
LAST 90 DAYS: 37 ALL TYPES 37 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj; pass: 1 uninj.

OCCURRENCE: The pilot chose to land beside the normal landing strip due to ruts and gravel on it. The snow was deep with a crust on top which caused the skis to dig in and the aircraft to overturn.

83-C30022

Cessna 172M

C-GCYH

DATE: 19 Mar 1983 1400 MST

OPERATION: Private ferry

PLACE: 1 mi E of Vibank Sas 50/19N 103/56W

LOCALE: Rolling farm field 1936' asl

WEATHER: Wind E 8 kt vis 15 cloud 8000' overcast temp -8°C

PILOT: Airline Transport

TOTAL HOURS:	2 300	ALL TYPES	50	ON TYPE
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LAST 90 DAYS:	40	ALL TYPES	10	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 1 uninj.

OCCURRENCE: During the take-off run, the aircraft's left main wheel entered a large hole with such force that it caused the bolt in the gear torque tube assembly to fail. The gear assembly then moved rearward and the wing contacted the ground.

This unknown hazard was created by the aircraft owner - while clearing a runway area, he inadvertently removed a large boulder.

Neither the owner nor the pilot walked the take-off area to check for unforeseen hazards.

83-C30023

Hughes 369HS

C-GOEA

DATE: 21 Mar 1983 1500 EST

OPERATION: Charter

PLACE: 3 mi N of Snow Drift Lake Ont 51/35N 88/58W

LOCALE: Snow-covered lake

WEATHER: Wind ENE 10 kt vis 15+ sky clear temp -20°C

PILOT: Commercial Rotorcraft

TOTAL HOURS:	2200	ALL TYPES	870	ON TYPE
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LAST 90 DAYS:	24	ALL TYPES	24	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 2 uninj.

OCCURRENCE: The pilot was transporting two passengers and some equipment to a campsite. He landed on a snow encrusted lake surface to close the back door which had come open in flight. After closing the door, the pilot lifted the helicopter into a hover and started moving forward for take-off. After travelling some 100 feet, the right skid touched and broke through the crust. Unaware the skid had penetrated, he increased torque, causing an excessive nose-down attitude. Realizing he had a problem, he increased collective pitch and applied left cyclic. As the right skid broke loose, the helicopter rolled onto its right side, coming to rest some 300 feet from the take-off point.

83-C30024

Bell 206B

C-FCQK

DATE: 24 Mar 1983 1200 EST

OPERATION: Charter

PLACE: Camp Yelverton NWT 82/17N 82/38W

LOCALE: Snow and ice-covered area at sea level

WEATHER: Wind light vis 10 sky clear temp -35°C

PILOT: Commercial rotocraft

TOTAL HOURS: 3600 ALL TYPES 1600 ON TYPE

LAST 90 DAYS: 35 ALL TYPES 35 ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 1 uninj.

OCCURRENCE: The pilot reportedly lost visual reference just before touchdown. A moment later, not feeling the ground, he pulled on the collective to climb, but the bear paw dug in; the helicopter rolled over onto its right side.

During the latter part of the descent, the pilot was using a snow drift as a reference point and illuminating it with his landing light. The cover was smooth with an inch of powdered snow on top and small groups of six inch drifts. The sun was low, with visibility 10 miles in haze; this caused flat light conditions in blowing snow from the downwash.

The pilot felt that dropping a dark object on a slow fly by would have provided a better visual reference point.

83-C30025

Cessna 170B

C-GPLD

DATE: 27 Mar 1983 1500 MST

OPERATION: Private recreation

PLACE: Birch Lake Sas 53/27N 108/10W

LOCALE: Snow-covered frozen lake

WEATHER: Wind S 13 kt vis 15+ sky clear temp 5°C

PILOT: Private

TOTAL HOURS: 300 ALL TYPES 40 ON TYPE

LAST 90 DAYS: 3 ALL TYPES 3 ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 2 uninj.

OCCURRENCE: While attempting take-off in sticky snow with a cross and slightly down wind condition, the path of the aircraft crossed an old packed-down trail. At this point, control was lost and the right gear collapsed. The pilot had very little experience on skis and had received no dual instruction.

83-C30028

Piper PA23-250

C-GZ00

DATE: 7 Apr 1983 0105 EST

OPERATION: Private business

PLACE: 26 miles NW of Coral Harbour NWT 64/26N 83/32W

LOCALE: Snow-covered hills 1322' asl

WEATHER: Wind S 12 kt vis 10 cloud 900' overcast temp -8°C

PILOT: Commercial Licence

TOTAL HOURS:	936	ALL TYPES	421	ON TYPE
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LAST 90 DAYS:	unknown	ALL TYPES	unknown	ON TYPE
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DAMAGE: Destroyed

CASUALTIES: Crew: 1 fatal; pass: 5 fatal.

OCCURRENCE: The pilot was on a night flight from Repulse Bay to Coral Harbour in instrument meteorological conditions. Twenty-six miles from Coral Harbour the aircraft flew into gently rising terrain. It was completely destroyed by impact forces and resultant fire.

The aircraft was IFR equipped and adequately fueled; no evidence of a pre-crash malfunction was found. The pilot was IFR proficient, experienced on type, and familiar with the route, area and facilities.

From the evidence examined, it is apparent that while in near level, controlled flight, the pilot flew into the ground. The impact altitude was more than 1000 feet below the 25 mile radius minimum for Coral Harbour. Investigators were unable to determine why the pilot was flying at such a low altitude.

83-C30029

Aeronca 7CCM

CF-NUH

DATE: 18 Apr 1983 1620 CST

OPERATION: Specialty recreation

PLACE: Wabigoon Lake Ont 49/44N 92/44W

LOCALE: Snow-covered frozen lake

WEATHER: Wind S 3 kt vis 15+ sky clear temp 8°C

PILOT: Private

TOTAL HOURS:	67	ALL TYPES	17	ON TYPE
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LAST 90 DAYS:	8	ALL TYPES	8	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj.

OCCURRENCE: The ski-equipped aircraft was being hand started. When the engine began running, the machine moved forward on glare ice and ran into a parked Cessna 150.

83-C30030

Stinson 108-2

C-FOQY

DATE: 21 Apr 1983 1130 CST

OPERATION: Private recreation

PLACE: 6 mi SE of Sperling Man 49/30N 97/42W

LOCALE: Ditch-bordered road 860' asl

WEATHER: Wind NNE 9 kt vis 15 cloud scattered temp 12°C

PILOT: Private - lapsed

TOTAL HOURS:	83	ALL TYPES	22	ON TYPE
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LAST 90 DAYS:	9	ALL TYPES	9	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 3 uninj.

OCCURRENCE: The pilot planned to land on an adjacent dirt road because his farm strip was soft and muddy. The aircraft touched down on the center of the road but, as the pilot did not compensate

adequately for the crosswind conditions, it veered to the left during roll-out. It crossed over the soft shoulder and through a water-filled ditch before coming to rest inverted in a field.

The pilot's Licence Validation Certificate had expired four months before the accident and the aircraft Certificate of Airworthiness had recently lapsed; although a CCI was completed, an application for a new C of A had not been filed.

83-C30031

Cessna 172P

C-GINQ

DATE: 21 Apr 1983 1225 MST

OPERATION: Specialty training

PLACE: Regina Sas 50/26N 104/40W

LOCALE: Paved runway 7900' by 200' 1894' asl

WEATHER: Wind ESE 18 kt vis 15+ Sky clear

PILOT: Student

TOTAL HOURS:	52	ALL TYPES	52	ON TYPE
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LAST 90 DAYS:	48	ALL TYPES	48	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj;

OCCURRENCE: The pilot was doing a touch-and-go landing on runway 12 with the wind indicating steady at 18 kts and little or no cross-wind. He stated that after touchdown, the aircraft bounced slightly. He was late on recovery, and reported that a gust of wind lifted the left wing and directional control was lost; the aircraft veered to the right off the runway and ground looped in a soft area.

83-C30032

Cessna 172H

C-FVBY

DATE: 23 Apr 1983 1440 MST

OPERATION: Private recreation

PLACE: Melfort Sas 52/52N 104/42W

LOCALE: Paved runway 300' by 75' 1495' asl

WEATHER: Wind SSW 10G16 kt vis 15+ sky clear temp 12°C

PILOT: Private

TOTAL HOURS:	52	ALL TYPES	10	ON TYPE
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LAST 90 DAYS:	5	ALL TYPES	5	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; Pass: 1 uninj.

OCCURRENCE: During a cross-wind landing attempt, the aircraft drifted to the right and came to rest inverted off the side of the runway.

83-C30033

Piper PA28-140

C-GIOU

DATE: 24 Apr 1983 1130 MST

OPERATION: Private recreation

PLACE: Spiritwood Sas 53/22N 107/32W

LOCALE: Flat paved highway

WEATHER: Wind calm vis 15+ sky clear temp 15°C

PILOT: Private licence

TOTAL HOURS:	168	ALL TYPES	140	ON TYPE
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LAST 90 DAYS:	3	ALL TYPES	3	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; Pass: 1 uninj.

OCCURRENCE: The pilot reported seeing three people on the ground; one of them was waving a red object. Concerned, he decided to check whether they required assistance. At a low altitude, he struck an unmarked hydro wire; the wire shattered the left windscreen and the pilot made a forced landing on a highway.

As the poles supporting the wire were hidden by trees, the line was not noticed. Still, the pilot was flying too low and allowed himself no altitude safety margin.

83-C30034

Piper PA34-200

C-GJUI

DATE: 28 Apr 1983 1820 MDT

OPERATION: Charter

PLACE: Uranium City Sas 59/34N 108/29W

LOCALE: Paved runway 5000' by 200' 1044' asl

WEATHER: Wind SW 5 kt vis 15 cloud 4000' scattered temp 2°C

PILOT: Senior Commercial licence

TOTAL HOURS:	2000	ALL TYPES	50	ON TYPE
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LAST 90 DAYS:	120	ALL TYPES	50	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj. pass: 4 uninj.

OCCURRENCE: During the landing roll the right gear collapsed. A torque link probably failed due to a stress corrosion crack.

83-C30035

Cessna 172

C-GCKO

DATE: 2 May 1983 1845 CST

OPERATION: Private business

PLACE: Turtleford Sas 53/23N 108/57W

LOCALE: Grass runway 2500' long 1950' asl

WEATHER: Wind WNW 30 kt vis 15+ cloud 4500' scattered temp 10°C

PILOT: Private

TOTAL HOURS:	61	ALL TYPES	6	ON TYPE
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LAST 90 DAYS:	6	ALL TYPES	6	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj.

OCCURRENCE: The pilot purchased the aircraft, received a three hour check-out and was ferrying it home. He had not flown in two years.

On arrival, unfavourable winds exceeded the aircraft cross-wind limitations and the pilot's ability. The first landing attempt was abandoned and on the second attempt, the aircraft was blown into some poplar trees without having touched the ground.

83-C30036

Bell 206B

C-GOKK

DATE: 3 May 1983 2100 MDT

OPERATION: Charter

PLACE: Rae Point NWT 77/13N 107/03W

LOCALE: Snow and ice-covered area

WEATHER: Wind 4 kt vis $\frac{1}{2}$ sky overcast temp -14°C

PILOT: Commercial rotocraft

TOTAL HOURS:	15000	ALL TYPES	1500	ON TYPE
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LAST 90 DAYS:	38	ALL TYPES	38	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj.

OCCURRENCE: The pilot took off on a short trip to pick up 4 men. He reported that he lost ground contact and reduced his speed to 60 mph and his height to 100 feet agl. Only a few ice chunks were visible on the snow-covered terrain. While checking his bearing and distance display, he allowed the aircraft to enter a nose-low attitude - immediately, he raised the nose, reduced his speed and made an approach to an ice chunk. The aircraft skidded on landing and rolled over.

The weather at the site was reported as overcast, $\frac{1}{2}$ mile visibility in ice crystals and light dry snow flakes; however, it had been variable with a tendency to deteriorate in the evenings but not uniformly over the route.

83-C30037

Mooney M-20E

CF-SER

DATE: 6 May 1983 1900 CDT

OPERATION: Private recreation

PLACE: Grand Rapids Man 53/10N 99/19W

LOCALE: Rolling gravel runway

WEATHER: Wind E 4 kt vis 15 sky clear temp 15°C

PILOT: Private

TOTAL HOURS:	1130	ALL TYPES	1000	ON TYPE
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LAST 90 DAYS:	Unknown	ALL TYPES	20	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 2 uninj.

OCCURRENCE: As the pilot approached the gravel strip he had the impression the runway was level. In actual fact, the gravel had been pushed down an incline leading to the threshold. The pilot reported that he touched down approximately 150 feet from the beginning of the gravel, and some 30 feet short of where the runway was level. There were no visible markers to indicate the location of the actual threshold.

The hard impact resulted in a partially collapsed nose gear and a bent propeller.

83-C30039

Sikorsky S55B/T

C-FBVP

DATE: 12 May 1983 1200 CST

OPERATION: Commercial non-revenue

PLACE: Prince Albert Sas 53/12N 105/46W

LOCALE: Flat wet-grass area

WEATHER: Wind NE 10 kt vis 15+ sky broken

PILOT: Commercial Rotorcraft

TOTAL HOURS:	19000	ALL TYPES	3000	ON TYPE
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LAST 90 DAYS:	150	ALL TYPES	10	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 2 uninj.

OCCURRENCE: The helicopter was being run up prior to a test flight; when the hydraulic servos were shut off and checked lateral to aft, one of the main rotor blades cut off the tail boom. As this unbalance led to ground resonance, the pilot lifted off and rotated twice before landing.

The run-up was conducted with a 10 knot tailwind on wet soft ground.

83-C30040

DeHavilland DHC-2

C-FVKH

DATE: 17 May 1983 1511 CDT

OPERATION: Charter

PLACE: Cat Lake Ont 51/40N 91/50W

LOCALE: lake water area

WEATHER: Wind W 25 G 30 kt with rain showers

PILOT: Senior Commercial licence

TOTAL HOURS:	2800	ALL TYPES	500	ON TYPE
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LAST 90 DAYS:	unknown	ALL TYPES	unknown	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj.

OCCURRENCE: While on take-off from a confined area in strong gusting winds, the aircraft pitched forward, rolled left and came to rest inverted. The area was confined as the lake was frozen over most of its surface.

83-C30042

Piper PA34-200

C-GNXZ

DATE: 19 May 1983 1830 MST

OPERATION: Private business

PLACE: Whitewood Sas 50/20N 102/16W

LOCALE: Grass runway 2000' by 100' 2000' asl

WEATHER: Wind N 8 kt vis 15 sky clear

PILOT: Private licence

TOTAL HOURS:	900	ALL TYPES	600	ON TYPE
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LAST 90 DAYS:	30	ALL TYPES	30	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj.

OCCURRENCE: Just after take-off, the top latches of the front entry door let go and the door popped open, causing a great deal of wind noise. The pilot elected to land back at his departure point, but in the confusion, he neglected to lower the gear. The door locking mechanism had not failed, but was not properly secured prior to flight.

83-C30043

Cessna 172N

C-GKMC

DATE: 22 May 1983 1500 MDT

OPERATION: Private recreation

PLACE: Outlook Sas 51/28N 107/07W
 LOCALE: Grass strip 1950' by 100' 1775' asl
 WEATHER: Wind S vis 5 cloud 1500' obscured temp 12°C
 PILOT: Private
 TOTAL HOURS: 75 ALL TYPES 75 ON TYPE
 LAST 90 DAYS: 15 ALL TYPES 15 ON TYPE
 DAMAGE: Substantial
 CASUALTIES: Crew: 1 uninj; pass: 3 uninj.
 OCCURRENCE: The pilot was on a local VFR flight; a thunderstorm moved into the area so he decided to land.

On final approach and landing, the pilot reported that his vision became obscured by heavy rain; consequently, he misjudged the landing roll.

The aircraft overran the strip and into a 6-8 inch dirt ridge collapsing the nose gear.

83-C30044 Champion 7ECA C-GEIH

DATE: 28 May 1983 1700 CDT
 OPERATION: Private recreation
 PLACE: 5 mi S of Audy Lake Man 50/45N 100/15W
 LOCALE: Flat grass-covered area
 WEATHER: Wind NNW 40 kt vis 15+ cloud 8000
 PILOT: Commercial
 TOTAL HOURS: 800 ALL TYPES 600 ON TYPE
 LAST 90 DAYS: 50 ALL TYPES 45 ON TYPE
 DAMAGE: Substantial
 CASUALTIES: Crew: 1 uninj; pass: 1 uninj.
 OCCURRENCE: The pilot was attempting take-off at or near the cross-wind limits for the aircraft; it drifted sideways, the left wing struck some bushes, the pilot lost control and the aircraft swung around.

83-C30045 Cessna 172H C-GYDM

DATE: 29 May 1983 1745 MDT
 OPERATION: Private recreation
 PLACE: Pierceland Sas 54/29N 109/46W
 LOCALE: Farm strip in hilly terrain
 WEATHER: Wind NE 3 kt vis 15+ cloud 12000 scattered temp 22°C
 PILOT: Private
 TOTAL HOURS: 182 ALL TYPES 136 ON TYPE
 LAST 90 DAYS: Unknown ALL TYPES 5 ON TYPE
 DAMAGE: Substantial
 CASUALTIES: Crew: 1 uninj; pass: 3 uninj.
 OCCURRENCE: An inexperienced pilot attempted to land in gusting crosswinds. He reported that as he flared, a strong gust weather-cocked the plane before touchdown. After landing, despite the application of full brakes and rudder, he was unable to directionally control and stop the aircraft; it nosed over in a ditch beside the runway.

From his statement, it appears the pilot flared too high and failed to use the proper crosswind landing technique.

83-C30046

Cessna 177RG

C-FRGB

DATE: 3 Jun 1983 1950 CDT

OPERATION: Private recreation

PLACE: Russell Man 50/46N 101/18W

LOCALE: Grass runway 2400' by 100' 1825' asl

WEATHER: Wind NNW 10 kt vis 15+ cloud 700' overcast temp 10°C

PILOT: Private licence

TOTAL HOURS:	932	ALL TYPES	400	ON TYPE
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LAST 90 DAYS:	15	ALL TYPES	15	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 2 uninj.

OCCURRENCE: The pilot was returning to his home field after a short trip. After broadcasting on the UNICOM frequency, he set up for a straight-in approach. The aircraft landed with the gear retracted, then slid to a stop 300 feet down the runway.

After the aircraft was lifted, the gear operated normally, and no fault was found in the system. The pilot thought he had made a "down" selection, and did not notice the warning horn, but in view of the normal operation of the system after the accident, it is likely that he simply forgot to lower it. The fact that he made a straight-in approach may have been a factor, since it is normal to select gear down while downwind in the circuit in this type of aircraft.

83-C30047

Cessna 172N

C-GYUS

DATE: 5 Jun 1983 0935 MST

OPERATION: Private recreation

PLACE: Unity Sas 52/27N 109/11W

LOCALE: Paved runway 2500' by 75' 2090' asl

WEATHER: Wind S 9 kt vis 15+ sky clear

PILOT: Private

TOTAL HOURS:	70	ALL TYPES	18	ON TYPE
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LAST 90 DAYS:	18	ALL TYPES	6	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 2 uninj.

OCCURRENCE: The pilot was landing in a area of turbulent cross-winds.

He reported that on touchdown, the aircraft bounced three times then drifted to the left side of the runway. He then decided to overshoot but was unable to regain sufficient airspeed; the aircraft hit a fence, touched down again, struck another fence then overturned in a ditch.

The pilot's decision to overshoot was too late. Also, he raised flaps to zero degrees rather than selecting 10 degrees as recommended in the manual.

82-020073

Piper PA23-250

CF-FGA

DATE: 4 Aug 1982, 1014 EDT

OPERATION: Specialty control

PLACE: 4 miles SE of Timmins Arpt Ont 48/31N 81/18W

LOCALE: Midair over tree-covered terrain

WEATHER: Wind SSE 5 kt vis 10 cloud 1200' overcast temp 13°C

PILOT: Airline Transport

TOTAL HOURS: 16000 ALL TYPES 700 ON TYPE

LAST 90 DAYS: 104 ALL TYPES 104 ON TYPE

DAMAGE: Destroyed

CASUALTIES: Crew: 1 fatal; pass: 2 fatal.

OCCURRENCE: The pilot took off on a solo flight from Timmins to Kapuskasing without checking the weather, filing a flight plan or notification - his company had no watch system for this flight. He found the destination weather below VFR and was refused SVFR because of other traffic. Although his instrument rating had expired, he air-filed and accepted a clearance for an IFR approach. Judging from his poor R/T procedures and unexplained approach delays, he appeared confused and lacked current experience with IFR procedures.

On his return to Timmins he again filed IFR. Presented with a descent and clearance for an instrument approach, again he appeared confused. Without seeking assistance or requesting another type of instrument approach it appears he attempted to descend through cloud outside of the letdown area. As it broke cloud, witnesses observed the aircraft in a steep descent, with pieces of aircraft and finally the right wing breaking off as it hurtled to the ground.

Based upon analysis of the wreckage, the pilot appeared to have descended at high speed; he then banked to the right, possibly to turn to the airport - at this point, the mid-air break-up commenced. Once clear of cloud, his rapid pullout from the 30 degree dive caused the damaged and distorted right wing to break into several sections.

82-020801

Cessna 172M

C-FKWO

DATE: 3 Dec 1982 2040 EST

OPERATION: Specialty training

PLACE: Buttonville Arpt Ont 43/52N 79/22W

LOCALE: Flat paved area on airport

WEATHER: Wind SSW 10 kt vis 15 cloud 3000' overcast temp 17°C

PILOT: Private

TOTAL HOURS: 75 ALL TYPES 25 ON TYPE

LAST 90 DAYS: 25 ALL TYPES 25 ON TYPE

DAMAGE: Minor

CASUALTIES: Crew: 1 uninj.

OCCURRENCE: The pilot of a Cessna 172 was practising solo circuits in preparation for his night endorsement. While selecting the tower frequency in the holding line behind a Cessna 152, the aircraft moved forward causing substantial damage to the one ahead.

The pilot of the 172 stated that he was not using the parking brake or the landing light. It could not be determined if the tail light of the 152 was functioning; however, all other lights were operating. (LP 408/82).

82-020802

Cessna 152

C-GQFU

DATE: 3 Dec 1982 2040 EST

OPERATION: Specialty training

PLACE: Buttonville Arpt Ont 43/52N 79/22W

LOCALE: Flat paved area on airport

WEATHER: Wind SSW 10 kt vis 15 cloud 3000' overcast temp 17°C

PILOT: Airline Transport

TOTAL HOURS:	2718	ALL TYPES	1000	ON TYPE
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LAST 90 DAYS:	138	ALL TYPES	114	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 2 uninj.

OCCURRENCE: The pilot of a Cessna 172 was practising solo circuits in preparation for his night endorsement. While selecting the tower frequency in the holding line behind a Cessna 152, the aircraft moved forward causing substantial damage to the one ahead.

The pilot of the 172 stated that he was not using the parking brake or the landing light. It could not be determined if the tail light of the 152 was functioning; however, all other lights were operating. (LP 408/82).

82-025001

Skyrider 20 Ultralight

None

DATE: 21 Jun 1982 1955 EDT

OPERATION: Private recreation

PLACE: Zurich Ont 43/26N 81/37W

LOCALE: Rolling cultivated area

WEATHER: Wind S 2 kt

PILOT: Unlicensed

TOTAL HOURS:	3	ALL TYPES	3	ON TYPE
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LAST 90 DAYS:	3	ALL TYPES	3	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 fatal.

OCCURRENCE: The operator departed his parents farm in his microlight (motorised hang glider). This particular machine is controlled in flight by the operator shifting his weight forward or aft, and/or to the left or right. Witnesses observed that when he climbed to an altitude of between 100 and 200 ft, he turned to the south. Shortly after the turn was completed, the machine pitched nose-down and maintained this attitude until impact with the ground. The operator was killed immediately. Witness observations and wreckage examination indicate that the machine probably stalled; the low altitude at the time of the stall, and the operator's inexperience made pre-impact recovery impossible.

Laboratory analyses of the machine revealed a mechanical irregularity in the propeller drive system which may have distracted him. The propeller drive shaft bearing assembly was in the initial stages of complete failure. The lower housing was deformed and contained fatigue precracks. The bearing housing combination was considered inadequate to carry the normal operational loads. (LP233/82).

82-025002

Skyrider 20 Ultralight

None

DATE: 4 Jul 1982 1340 EDT

OPERATION: Private training

PLACE: Clappisons Corners Ont 43/20N 79/55W

LOCALE: Rolling cultivated area 915' ASL

WEATHER: Wind NNE 4 kt vis 6 cloud 1800 scattered temp 18°C

PILOT: Unlicenced

TOTAL HOURS: unknown ALL TYPES unknown ON TYPE

LAST 90 DAYS: unknown ALL TYPES unknown ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 fatal;

OCCURRENCE: The operator was conducting circuits in his new microlight (motorised hang glider). This particular machine is controlled in-flight by the operator shifting his weight forward or aft, and/or to the right or left. Witnesses observed the microlight enter several shallow porpoising manoeuvres, then pitch nose-down and descend at a steep angle. The machine impacted the ground in a nearly vertical attitude; the operator sustained fatal injuries.

Laboratory analysis determined a mechanical failure had occurred in the machine's propeller drive train, prior to impact; the rear bearing housing on the propeller drive shaft had failed due to fatigue pre-cracking. The failure was attributed to operational loads in excess of the design loads. The analysis concluded that the bearing/housing combination was inadequate to carry the normal operational loads.

It is probable that the drive train failure distracted the operator, and caused him to move his body weight aft when he turned to investigate the problem. This aft movement caused a stall and resulted in the nose-down attitude and rapid descent. Available evidence indicated that the operator had accumulated only 45 minutes of flying time prior to the accident flight. (LP216/82).

83-030007

Piper PA28-161

C-GQJS

DATE: 22 Feb 1983 1300 EST

OPERATION: Flying Club recreation

PLACE: Morpeth Ont 42/24N 81/48W

LOCALE: Paved road 750' asl

WEATHER: Wind calm vis 1½ in rain cloud 1500' overcast temp 4°C

PILOT: Private licence

TOTAL HOURS:	75	ALL TYPES	75	ON TYPE
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LAST 90 DAYS:	30	ALL TYPES	30	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 1 uninj.

OCCURRENCE: The pilot was attempting to reach destination before an approaching cold front, but the front moved faster than he expected. Ten miles from destination he reversed course, but conditions deteriorated rapidly so he made a precautionary landing on a road. Conditions improved after frontal passage, so he decided to take off. He had stopped short of a sign on the shoulder of the road on landing, but forgot it was there and the wing struck it as he started take-off. He stopped the aircraft immediately.

The pilot was not aware of regulations governing operation from roads, and did not call the flying club for assistance. He had recently obtained his private licence, and attempted a procedure that was beyond his capabilities.

83-030008

Piper PA28-140

C-GNVE

DATE: 25 Feb 1983 1233 EST

OPERATION: Private training

PLACE: Buttonville Arpt Ont 43/52N 79/22W

LOCALE: Flat grass-covered area on airport

WEATHER: Wind NNW 13 kt vis 25 cloud 2800 scattered temp -4°C

PILOT: Private

TOTAL HOURS:	120	ALL TYPES	2	ON TYPE
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LAST 90 DAYS:	2	ALL TYPES	2	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 2 uninj.

OCCURRENCE: At about 100 feet over the end of the runway, the pilot decided to overshoot. During final approach, the Tower had warned him of this possibility. He tried to open the throttle but found it jammed; neither could the instructor in the right seat budge it. The check pilot, aware of an aircraft on the runway, turned the aircraft to the left and carried out a forced landing on the frozen infield.

Examination of the throttle assembly and carburettor did not reveal the cause of the reported malfunction.

83-030009

Jodel F-11

C-GDWR

DATE: 26 Feb 1983 1505 EST

OPERATION: Private training

PLACE: Selkirk Ont 42/51N 79/50W

LOCALE: Grass runway 2500' by 100' 600' asl

WEATHER: Wind S 5 kt vis 15 sky clear temp 3°C

PILOT: Commercial

TOTAL HOURS:	2265	ALL TYPES	12	ON TYPE
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LAST 90 DAYS:	20	ALL TYPES	1	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 2 minor

OCCURRENCE: During roll-out, following a normal touchdown, the right wheel separated from the aircraft.

The recently purchased aircraft had undergone repairs of which the new owner was not advised. A crack in the right wheel axle had been brazed by an amateur welder. The repair deteriorated due to corrosion, and the axle failed in overload.

83-030010

Piper PA23-250

C-GQKY

DATE: 2 Mar 1983 1350 EST

OPERATION: Commercial - non-revenue

PLACE: Peterborough Arpt Ont 44/14N 78/22W

LOCALE: Paved runway 5000' by 100' 628' asl

WEATHER: Wind WNW 8 kt vis 15 cloud 3000' broken temp 7°C

PILOT: Airline Transport

TOTAL HOURS:	3347	ALL TYPES	170	ON TYPE
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LAST 90 DAYS:	280	ALL TYPES	2	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj.

OCCURRENCE: As power was being applied during the take-off roll, the right main gear retracted causing the right propeller and wing tip to contact the runway. The aircraft swerved to the right and came to rest on the right side of the runway, 400 feet from the threshold.

The gear extension, retraction and locking mechanism was found to be clean, well lubricated and functioned normally during retraction and extension tests. No faults were detected which would have caused the gear to retract.

The weight switch located on the left gear, also functioned normally and would have prevented the gear from retracting had the gear selector been in the retract position. The cause of the gear retraction could not be determined.

83-030011

Cessna 172G

C-FUHQ

DATE: 6 Mar 1983 1500 EST

OPERATION: Private recreation

PLACE: Maple Arpt Ont 43/51N 79/31W

LOCALE: Flat muddy ploughed field 770' asl

WEATHER: Wind E 9 kt vis 10 cloud 10 000' broken temp 10°C

PILOT: Private

TOTAL HOURS:	82	ALL TYPES	10	ON TYPE
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LAST 90 DAYS:	20	ALL TYPES	9	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 1 uninj.

OCCURRENCE: The pilot was on a short flight from his home base to a nearby airport where he intended to pick up a passenger and refuel. While on final approach the engine lost power. The pilot was unable to glide to the runway so he landed in a farm field

adjacent to the airport. During the landing roll the nosewheel broke off and the aircraft tipped up onto its nose and right wing.

Investigation determined the pilot had not dipped the fuel tanks prior to flight; he had relied on the two fuel gauges which read $\frac{1}{4}$ and slightly less than $\frac{1}{4}$ respectively. When the aircraft fuel system was drained following the accident, only 1.1 Imperial gallons of fuel was retrieved; the manufactures specifications indicate up to 2.5 gallons is to be considered unusable. The aircraft had flown 4.3 hours since it had last been refuelled.

Investigation concluded the power loss was the result of fuel exhaustion.

83-030015

Cessna 185B

C-FOUN

DATE: 12 Mar 1983 1605 EST

OPERATION: Private business

PLACE: Brampton Arpt Ont 43/46N 79/53W

LOCALE: Paved runway 2200' by 75' 900' asl

WEATHER: Wind N 20 G 25 kt vis 15+ sky clear temp 26°C

PILOT: Commercial

TOTAL HOURS:	310	ALL TYPES	55	ON TYPE
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LAST 90 DAYS:	11	ALL TYPES	11	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 2 uninj.

OCCURRENCE: The pilot reported that as check pilot, he was occupying the right seat during the approach and landing. Due to gusting crosswinds, the aircraft started to roll left during the flare. Realizing the pilot at the controls was not responding correctly, the check pilot attempted to rectify the situation by applying corrective control inputs. Unfortunately, the pilot at the controls did not relinquish control soon enough, and the dual inputs allowed the left wing tip and propeller to contact the runway.

83-030016

Cessna 177RG

C-GUGV

DATE: 13 Mar 1983 1755 EST

OPERATION: Flying Club recreation

PLACE: Brampton Arpt Ont 43/46N 79/53W

LOCALE: Paved runway 2200' by 75' 900' asl

WEATHER: Wind NE 3 kt vis 25 cloud scattered temp 8°C

PILOT: Private licence

TOTAL HOURS:	212	ALL TYPES	15	ON TYPE
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LAST 90 DAYS:	26	ALL TYPES	4	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 1 uninj.

OCCURRENCE: The pilot could not start the engine as the battery did not have sufficient power to turn it. A booster battery was connected to the aircraft and the engine responded.

Nearing the end of a one hour local flight, the pilot suspected his transmitter was not functioning properly, as the radios were weak. He joined the circuit, lowering flaps and landing gear. Just after touchdown, the gear collapsed and the aircraft slid off the left side of the runway. The pilot reported he felt the landing gear extending and saw the gear down light illuminate. He also stated that at no time did he hear the warning indicating the gear was unsafe.

Investigation determined a failed alternator prevented the battery from charging - the landing gear is extended by an electrically driven hydraulic pump. There was insufficient battery power to fully extend the gear and operate the warning devices.

83-030017

Cessna 310D

C-GJPJ

DATE: 17 Mar 1983 0106 EST

OPERATION: Private training

PLACE: 2 miles NW of Carp Arpt Ont 45/21N 76/03W

LOCALE: Flat ploughed corn field 382' asl

WEATHER: Wind ENE 6 kt vis 4 sky obscured temp 0°C

PILOT: Private

TOTAL HOURS:	295	ALL TYPES	164	ON TYPE
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LAST 90 DAYS:	4	ALL TYPES	4	ON TYPE
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DAMAGE: Destroyed

CASUALTIES: Crew: 1 fatal.

OCCURRENCE: The pilot was on a local VFR flight at night. After a brief sight-seeing excursion within the Ottawa PCZ, he returned to the vicinity of the Carp airport, his point of origin. Eight minutes after his last radio contact with Ottawa Tower, the aircraft crashed 2 miles north of the airport in a position corresponding to the downwind leg to runway 10.

The aircraft struck the ground left wing low, in a steep nose-down attitude at high speed. Examination of the wreckage did not reveal any pre-impact failure of the aircraft; both engines were operating at high RPM on impact.

Tissue sample tests indicated an alcohol level high enough to degrade the pilot's mental and physical capacities.

As the area surrounding the Carp airport is sparsely populated, there are few ground lights. This combined with the low visibility due to fog, would limit the visual cues available to the pilot. The absence of visual cues coupled with his reduced mental capacity, suggests spatial disorientation was the likely cause of the accident. Investigators concluded the descent to impact occurred when the pilot became disoriented and entered a descent, probably while turning from downwind to base leg.

83-030018

Cessna 152

C-GGYT

DATE: 17 Mar 1983 1620 EST

OPERATION: Specialty training

PLACE: Amherst Island Ont 44/08N 76/40W

LOCALE: Flat muddy area 305' ASL

WEATHER: Wind SSW 7 kt vis 12 cloud 30000 Broken temp 10°C

PILOT: Student

TOTAL HOURS:	15	ALL TYPES	15	ON TYPE
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LAST 90 DAYS:	6	ALL TYPES	6	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj.

OCCURRENCE: The student pilot proceeded to Amherst Island to practise forced approaches. During the climb-out after his fourth or fifth approach at an altitude of about 1200 feet AGL, the engine began to run rough and would not respond to full throttle. The pilot turned toward a private airstrip but overshot the runway.

Because the aircraft was now headed for open water, he turned left toward the centre of the island and touched down with full flap selected and some right drift. The nose wheel dug into the soft ground and long dead grass causing the aircraft to overturn.

The pilot stated each approach consisted of a power off descent from 3000 feet with full carb heat. He cleared the engine by applying partial power momentarily during each descent, and at about 500 feet, returned the carb heat to cold and applied full power for the climb.

Examination of the spark plugs revealed some lead contamination. It is likely the loss of power was due to spark plug fouling. This is a known problem in Cessna 152 aircraft installed with Blue Streak Lycoming O-235-L2C engines, and has been the subject of four Cessna Service Information Letters. Letter SE79-9 contains recommended procedures for the reduction of lead fouling; letter SE79-8 approves the use of TCP as an additive to inhibit lead fouling; letter SE79-65 recommends the use of 100 low lead fuel; and SE80-100 approves the use of an improved spark plug. Although 100/130 fuel is acceptable, low lead fuel, unfortunately, is not available in Canada.

83-030019

Cessna 152

C-GINI

DATE: 18 Mar 1983 1750 EST

OPERATION: Flying Club training

PLACE: 3 miles E of Perth Ont 44/54N 76/12W

LOCALE: Ditch bordered highway

WEATHER: Wind WNW 14 kt vis 12 cloud 8000' overcast temp 7°C

PILOT: Student

TOTAL HOURS:	45	ALL TYPES	45	ON TYPE
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LAST 90 DAYS:	4	ALL TYPES	4	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj.

OCCURRENCE: The student pilot was on a short solo flight when he became lost on the final leg. In an attempt to pinpoint his position, he turned and flew in a northerly direction. He also tried to make radio contact but was unsuccessful. He then recognized the town

of Perth situated 40 miles off track. Being concerned with the approaching darkness and the possibility of getting lost again, he decided to land on a stretch of highway. Directional control was lost during the roll-out, and the aircraft veered right, striking a tree and fence post.

83-030022

Cessna 421B

C-GOUJ

DATE: 12 Apr 1983 2030 EST

OPERATION: Private Business

PLACE: Welland Arpt Ont 42/59N 79/19W

LOCALE: Paved runway 2650' by 100' 580' ASL

WEATHER: Wind S 5 kt vis 15 sky clear temp 3°C

PILOT: Commercial

TOTAL HOURS:	5000	ALL TYPES	250	ON TYPE
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LAST 90 DAYS:	42	ALL TYPES	42	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 2 uninj.

OCCURRENCE: Following a normal touchdown in a light cross-wind, the right main landing gear collapsed. The aircraft came to rest on the right wing tip.

It is suspected that when the transition of controlling the cross-wind was transferred from the flight controls to the landing gear, the resulting side loads caused flexing of the landing gear attachment structures sufficient to cause the over centre lock to open. The actuating system then failed at the weakest point, and the landing gear collapsed.

83-030023

Cessna 180J

CF-GDQ

DATE: 12 Apr 1983 1734 EST

OPERATION: Private business

PLACE: Hamilton Arpt Ont 43/10N 79/56W

LOCALE: Paved runway 6000' by 150' 776' asl

WEATHER: Wind ESE 7 kt vis 15 cloud 3500' scattered temp 10°C

PILOT: Commercial

TOTAL HOURS:	1552	ALL TYPES	921	ON TYPE
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LAST 90 DAYS:	unknown	ALL TYPES	unknown	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj. pass: 2 uninj.

OCCURRENCE: On landing roll out, control of the aircraft was lost when it veered off the runway and swung around 180 degrees. The cross-wind was reported as 60 degrees off the runway at less than 5 kts before the accident, and 7 kts after.

83-030024

Beech A23-19

CF-FPA

DATE: 23 Apr 1983 1323 EST

OPERATION: Private recreation

PLACE: 2 miles SW of Erin Ont 43/44N 80/05W
 LOCALE: Grass-covered strip 1600' by 50' 1300' ASL
 WEATHER: Wind NNW 8 kt vis 15 cloud 4000' Broken temp 11°C
 PILOT: Private
 TOTAL HOURS: 300 ALL TYPES 75 ON TYPE
 LAST 90 DAYS: 1 ALL TYPES 0 ON TYPE
 DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj. pass: 1 uninj.

OCCURRENCE: The aircraft had been tied down outside for 7 months. No flying had been done, and the engine had been run up only once.

The pilot reported that on the day of the accident, the engine had checked out satisfactorily on the run up. However, he did not follow the proper procedures regarding carburettor heat.

On the take-off run, the engine did not develop full power and failed to accelerate properly. It gained only 3 to 4 ft of altitude, struck a fence at the end of the strip; then settled heavily in an adjacent field.

Examination of the engine revealed there was a mouse nest in the flexible duct between the carb heat muff and air box. When full power was applied, the material was drawn into the box thus restricting the air flow and plugging the fuel metering jet. This material could not be detected by a visual pre-flight inspection.

83-Ø30026

Maule M5-210C

C-GJPS

DATE: 22 Apr 1983 1924 EST
 OPERATION: Private training
 PLACE: Shelburne Ont 44/04N 80/09W
 LOCALE: Grass runway 2000' by 50' 1600' asl
 WEATHER: Wind NW 5 kt vis 15 sky clear temp 4°C
 PILOT: Student
 TOTAL HOURS: 89 ALL TYPES 42 ON TYPE
 LAST 90 DAYS: 28 ALL TYPES 28 ON TYPE
 DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj;

OCCURRENCE: An unlicensed pilot still under dual instruction, took off solo for a short pleasure flight. After about 25 minutes, he returned and landed. The aircraft struck soft ground on the grass strip, the wheels dug in and the aircraft nosed over.

The pilot was familiar with his aerodrome. He could have landed and stopped prior to reaching the soft area; however, his lack of proficiency probably caused him to use more runway than necessary.

83-Ø30027

Beech B-19

C-GNQH

DATE: 26 Apr 1983 1330 EDT
 OPERATION: Private business

PLACE: Maple Arpt Ont 43/51N 79/31W
LOCALE: Paved runway 2070' by 50' 770' asl
WEATHER: Wind NNW 4 kt vis 25 sky clear temp 16°C
PILOT: Private

TOTAL HOURS:	131	ALL TYPES	5	ON TYPE
LAST 90 DAYS:	21	ALL TYPES	5	ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 1 uninj.

OCCURRENCE: Following a short local flight, the pilot returned to land. Runway 32 (2070 x 50 feet) was the active, with a light NW wind. The aircraft did not touch down until 950 feet from the threshold, then porpoised until the nose gear collapsed. As it skidded to a stop, 1650 feet from the threshold, fire broke out in the nose area. Airport personnel put out the fire with dry chemical extinguishers after the two occupants escaped via the main door.

Investigation revealed the nose gear failure was due to overload. The fire started in the belly aft of the firewall, and progressed back to mid-wing, due to hydraulic oil being sprayed on the belly, and heat generated by the nosewheel casting skidding on the asphalt.

Investigators felt that the long landing was due in part to the pilot's inexperience on type. The porpoising then resulted from attempts to pin the aircraft on the runway at too high an airspeed. The relatively short runway requires good technique and touchdown near the threshold.

83-030028

F.J. Special

C-GBQA

DATE: 9 May 1983 1900 EDT

OPERATION: Private - test

PLACE: Baldwin Ont 44/16N 79/20W

LOCALE: Mid-air

WEATHER: Wind WNW 15 G 20 kt vis 15 cloud 9000' scattered temp 9°C

PILOT: Commercial

TOTAL HOURS:	1100	ALL TYPES	240	ON TYPE
LAST 90 DAYS:	2	ALL TYPES	1	ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj.

OCCURRENCE: The pilot incorporated two sets of mixing controls of his own design on the aileron and elevator flight control systems. He believed that the modification would give him more control over the aircraft during aerobatics.

On his first flight, as he approached VNE in a shallow dive, he operated the ailerons and the tail began to flutter violently. He slowed down but could not prevent damage which almost caused failure of the rear fuselage and tail plane assembly.

The pilot had made changes to the flight controls, engine and propeller which did not conform to the original flight permit. The Experimental Aircraft Association of Canada should have been asked for their approval of the modifications before attempting the flight.

DATE: 10 May 1983 1250 EDT

OPERATION: Private business

PLACE: Toronto Island Harbour Ont 43/58N 79/24W

LOCALE: Lake water area 250' asl

WEATHER: Wind NNW 16 G 22 kt vis 15 cloud 10000 scattered temp 14°C

PILOT: Private licence

TOTAL HOURS:	164	ALL TYPES	113	ON TYPE
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LAST 90 DAYS:	6	ALL TYPES	5	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 1 uninj.

OCCURRENCE: The pilot was landing in gusting wind conditions. Although he could have landed into wind, he chose a direction which resulted in a cross-wind from the right.

He reported that just before touchdown, a gust of wind lifted the right wing, causing the left float to contact the water and dig in. The pilot was unable to regain control and the aircraft then cartwheeled, coming to rest inverted. The two occupants escaped, clung to the floats and were rescued a short time later.

This aircraft was equipped with STOL devices, new floats and a more powerful engine. As such, the aircraft required more caution and skill while landing in a cross-wind, than a conventional model.

DATE: 11 May 1983 2320 EDT

OPERATION: Private training

PLACE: Collingwood Ont 44/27N 80/10W

LOCALE: Paved runway 3000' by 75' 724' ASL

WEATHER: Wind ESE 5 kt vis 15+ sky clear temp 9°C

PILOT: Private

TOTAL HOURS:	193	ALL TYPES	35	ON TYPE
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LAST 90 DAYS:	11	ALL TYPES	11	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj.

OCCURRENCE: One hour after departing on a night navigation exercise, the pilot noticed the radio lights start to fade. After making some checks, the pilot realized he had a complete electrical failure.

He elected to land at Collingwood rather than return to Buttonville and land without radio and lights. He touched down only to discover that the automatic gear extension had not worked. The pilot was not familiar with the operation of this system.

Unknown to the pilot, the automatic gear lowering system cannot function without electrical power. It can only be lowered by the emergency gear lever that allows the main gear to free fall - also, the nose gear is positioned by spring assistance.

An inspection of the aircraft electrical system revealed the alternator drive belt was loose and heavily glazed. While on the night operation, the pilot was using an electrical load heavier than the alternator could replace into the battery. The warning system did not illuminate because the alternator was still charging. When the battery power was depleted, the system failed completely. Had the pilot shut down some of the radios and lights, the system may have recovered enough to operate the radio and gear.

The loose belt was not detected during the 100 hour inspection conducted prior to the flight.

83-030031

Cessna 172P

C-GRBI

DATE: 15 May 1983 0940 EDT

OPERATION: Specialty training

PLACE: 3 miles E of Craighurst Ont 44/32N 79/33W

LOCALE: Tree-covered hills 1150' asl

WEATHER: Wind NW 8 kt vis $\frac{1}{2}$ cloud 100' overcast temp 7°C

PILOT: Private

TOTAL HOURS:	73	ALL TYPES	15	ON TYPE
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LAST 90 DAYS:	2	ALL TYPES	2	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 fatal; pass: 3 serious

OCCURRENCE: The pilot entered an area of high terrain where fog and low cloud were developing. The aircraft was heard circling in the vicinity of the accident site - the pilot was probably attempting to avoid the deteriorating weather.

The aircraft stalled in a left turn at low level and crashed.

83-030034

DeHavilland DHC-2

C-FGBF

DATE: 28 May 1983 0930 EDT

OPERATION: Charter

PLACE: Echo Lake Ont 50/04N 80/35W

LOCALE: Lake water area

WEATHER: Wind light vis 15+ cloud 1000' broken

PILOT: Senior Commercial licence

TOTAL HOURS:	3500	ALL TYPES	75	ON TYPE
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LAST 90 DAYS:	90	ALL TYPES	35	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; Pass: 3 uninj.

OCCURRENCE: The pilot circled the lake twice to check for obstructions then set up for a glassy water landing. At touchdown, the aircraft nosed over when control was lost.

Although the pilot felt he had struck a large log, neither the floats nor fuselage were damaged. Both wing tips were damaged and the wings were bent upwards a few degrees at the aileron/flap

junction. This would indicate the aircraft water looped to both the left and right. It is possible the pilot misjudged his height over the glassy water and touched down with yaw.

83-030035

Piper J3C-65

C-GOML

DATE: 28 May 1983 1130 EDT

OPERATION: Private recreation

PLACE: Alliston, Ont 44/11N 79/50W

LOCALE: Grass runway 1500' by 200' 725' asl

WEATHER: Wind SW 11 kt vis 15+ sky clear temp 10°C

PILOT: Private

TOTAL HOURS:	822	ALL TYPES	11	ON TYPE
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LAST 90 DAYS:	19	ALL TYPES	10	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj.

OCCURRENCE: The pilot had completed 12 or more "touch-and-go" practise circuits. He reported that on the final roll-out, he lost control of the aircraft, and it drifted to the right into a potato field. To recover, he immediately applied full throttle and became airborne. Suddenly, the pilot saw a tree straight ahead - when he turned sharply to avoid it, he stalled the aircraft.

83-030038

Cessna 152

C-GQTV

DATE: 12 Jun 1983 1130 EDT

OPERATION: Flying club recreation

PLACE: Brampton Arpt Ont 43/46N 79/53W

LOCALE: Paved runway 2200' by 40' 900' asl

WEATHER: Wind WNW 7 kt vis 10 cloud 6500' scattered temp 29°C

PILOT: Student

TOTAL HOURS:	15	ALL TYPES	15	ON TYPE
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LAST 90 DAYS:	9	ALL TYPES	9	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj.

OCCURRENCE: Having completed several supervised touch-and-go landings during the training session, the student received authorization for a second solo flight.

During the approach, the left cross-wind was light and within aircraft operating limits; however, the pilot failed to correct effectively for the right drift. On round out for landing, the aircraft was positioned with the nose wheel and right main wheel over the soft grass shoulder lining the runway.

The pilot did not apply power to realign the aircraft with the runway, nor did he consider a missed approach, even though one third of the runway was behind him. He did manage to gradually turn left for realignment as the aircraft decelerated on the landing roll. However, the nose wheel encountered very soft ground just short of the asphalt, pitching the aircraft onto its nose and right wing tip.

83-030042

Cessna 177RG

C-GUGV

DATE: 19 Jun 1983 0030 EDT

OPERATION: Specialty recreation

PLACE: 1 mile S of Brampton Arpt Ont 43/46N 79/53W

LOCALE: Flat grass-covered area 900' asl

WEATHER: Wind NNW 7 kt vis 15+ cloud 3800' broken temp 16°C

PILOT: Airline Transport

TOTAL HOURS: 2500 ALL TYPES 100 ON TYPE

LAST 90 DAYS: 10 ALL TYPES 8 ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj.

OCCURRENCE: During final approach, the engine failed as a result of fuel exhaustion. The pilot decided to leave the landing gear retracted and land straight ahead.

The day of the accident, the aircraft had flown a number of flights since being refuelled. The pilot calculated his fuel load based on the fact that the aircraft had been filled to capacity at the last fuelling, and had flown 3.2 hours since then. He did not recall the fuel gauge indications nor did he visually check quantity prior to departure. He further stated that he did not rely on fuel gauge indications in light aircraft. Following the accident, one-half litre of fuel was drained from the aircraft.

83-030046

Cessna 172G

CF-DZJ

DATE: 22 Jun 1983 1000 EDT

OPERATION: Private recreation

PLACE: 5 miles W of Powasson Ont 46/10N 79/28W

LOCALE: Flat and rough farm field

WEATHER: Wind calm vis 15+ sky clear

PILOT: Private licence

TOTAL HOURS: 140 ALL TYPES 30 ON TYPE

LAST 90 DAYS: 17 ALL TYPES 5 ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj.

OCCURRENCE: Arriving at his destination, the pilot selected a field for landing. Following touchdown, the nose gear failed rearwards and the aircraft came to rest after tipping onto the left wing tip.

The rough and undulating surface of the field caused the gear to fail.

83-030049

Cessna 172N

C-GTGG

DATE: 2 Jul 1983 1820 EDT

OPERATION: Flying Club recreation

PLACE: Oshawa Arpt Ont 43/55N 78/54W

LOCALE: Paved runway 2670' by 150' 458' asl

WEATHER: Wind SW 10 kt vis 10 sky clear

PILOT: Private

TOTAL HOURS:	281	ALL TYPES	47	ON TYPE
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LAST 90 DAYS:	1	ALL TYPES	1	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj.

OCCURRENCE: The pilot was practising circuits. On his second landing, he misjudged his height and did not flare in time to prevent the nosewheel from hitting first. This resulted in a bounce, and again the nosewheel struck first, causing the nose gear to collapse. The weather was ideal, with a 10 kt wind blowing right down the runway.

83-030051

Grumman AA5

C-GERP

DATE: 21 Jun 1983 1745 EDT

OPERATION: Private recreation

PLACE: Woodstock Ont 43/07N 80/49W

LOCALE: Gravel and turf runway 1900' by 100' 1040' asl

WEATHER: Wind NNE 3 kt vis 15+ sky clear temp 26°C

PILOT: Private licence

TOTAL HOURS:	164	ALL TYPES	45	ON TYPE
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LAST 90 DAYS:	15	ALL TYPES	15	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 1 uninj.

OCCURRENCE: After landing on the turf/gravel runway, the pilot raised the flaps to improve braking. He had intended to turn off near the end into a parking area, but felt his speed was slightly high, and allowed the aircraft to continue. It rolled onto a grassy area, slid almost to a stop on the edge of a ditch, then rolled into the 10 foot deep ditch.

The pilot attributed the overrun to the lack of wind, the high temperature, and the relatively high landing speed of the aircraft, which all combined to produce a longer than expected landing roll.

83-030058

Piper PA22-135

C-GNHD

DATE: 13 Jul 1983 1600 EDT

OPERATION: Private recreation

PLACE: King City Arpt Ont 43/51N 79/34W

LOCALE: Grass-bordered paved runway 1800' by 200' 930' asl

WEATHER: Wind WNW 9G16 vis 15+

PILOT: Private licence

TOTAL HOURS:	1770	ALL TYPES	220	ON TYPE
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LAST 90 DAYS:	45	ALL TYPES	45	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj.

OCCURRENCE: The pilot was landing on runway 16 with a quartering tail wind. He reported that after touchdown he pulled on the brake lever and the right brake actuator failed; this depleted both right and left brakes and all braking action was lost. It was too late to overshoot so the pilot decided to stay on the ground - the aircraft overran the runway, crossed a road and came to rest inverted beyond a ditch.

83-030060

Viking Dragonfly

C-GFUE

DATE: 25 Jul 1983 2015 EDT

OPERATION: Private recreation

PLACE: Brantford Ont 43/08N 80/21W

LOCALE: Paved runway 4000' by 100' 815' ASL

WEATHER: Wind SW 5 kt vis 15 cloud 3600' scattered temp 25°C

PILOT: Private licence

TOTAL HOURS: 182 ALL TYPES 5 ON TYPE

LAST 90 DAYS: 13 ALL TYPES 4 ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj.

OCCURRENCE: After touchdown, the aircraft bounced three times - each time with increased severity. At this point, the pilot applied full power but the aircraft nose dropped and struck the ground.

82-P20001

Mitsubishi MU2B-26

C-GRFU

DATE: 18 Jan 1982 2003 PST

OPERATION: Private business

PLACE: Kelowna BC 50/11N 119/32W

LOCALE: Tree-covered mountains 4400' asl

WEATHER: Wind N 7 kt vis 15 cloud 6000' broken temp -3°C

PILOT: Private

TOTAL HOURS: 1099 ALL TYPES 63 ON TYPE

LAST 90 DAYS: Unknown ALL TYPES Unknown ON TYPE

DAMAGE: Destroyed

CASUALTIES: Crew: 1 fatal; pass: 1 fatal

OCCURRENCE: The pilot reported the beacon outbound and was asked to report the beacon inbound. Approximately twelve minutes later an emergency locator transmitter signal was heard. The aircraft had crashed into a mountain at a level of 4400 feet. The crash heading did not match any of those required for an instrument approach to the airport, and the impact position was on the side of the approach opposite to that used for the procedure turn.

There was no evidence of mechanical failure and the engines were developing power at impact; the landing gear and flaps were retracted.

The pilot had accumulated only 15 hours total night flying time, and had worked for 12 hours prior to the accident. Conditions were that of a dark night with unlit obstructions and terrain features which did not contrast well with the horizon.

Although the factors leading to the accident remain undetermined, it seems likely that the pilot, for some reason, abandoned IFR flight. His limited night flying experience and possible fatigue after a fairly long day may have led him to depart from his cleared flight path.

82-P20031

Bell 205A-1

C-GXNE

DATE: 21 May 1982 1400 PST

OPERATION: Commercial non-revenue

PLACE: Balmoral BC 50/50N 119/30W
 LOCALE: Flat cultivated area
 WEATHER: Wind light vis 15+ sky clear temp 24°C
 PILOT: Commercial
 TOTAL HOURS: 1100 ALL TYPES 600 ON TYPE
 LAST 90 DAYS: Unknown ALL TYPES Unknown ON TYPE
 DAMAGE: Substantial
 CASUALTIES: Crew: 1 uninj; pass: 7 uninj.
 OCCURRENCE: While returning to base following an electrical malfunction, the engine failed. The autorotation landing was hard, causing substantial damage.

An unidentified engine component, probably in the reduction gearbox power output shaft area, failed. This contaminated the oil and led to failure of the oil scavenge pump; this in turn, led to oil starvation of the engine.

82-P20044 Aerostar AE601 C-GDMI

DATE: 19 Jul 1982
 OPERATION: Charter
 PLACE: Unknown
 LOCALE: Mountainous terrain
 WEATHER: Unknown
 PILOT: Airline Transport
 TOTAL HOURS: 2822 ALL TYPES 29 ON TYPE
 LAST 90 DAYS: Unknown ALL TYPES 29 ON TYPE
 DAMAGE: Unknown
 CASUALTIES: Crew: 1 fatal; pass: 1 fatal
 OCCURRENCE: The aircraft was on a charter VFR flight from Dawson Creek to Dease Lake. Dawson Creek radio had last contact with the pilot about ten minutes after take-off. Despite an intensive search, no trace of the aircraft was found.

By all accounts the enroute weather was below VFR, as was it at destination. However, Dease Lake weather was not available before take-off; it seems the pilot intended to obtain this information while airborne but never did.

82-P20053 Sikorsky S-58ET CF-OKO

DATE: 8 Aug 1982 1500 PDT
 OPERATION: Specialty construction
 PLACE: Pink Mountain BC 57/10N 122/50W
 LOCALE: Clearing in tree-covered mountains
 WEATHER: Wind 20 kt vis 15+ sky clear temp 22°C
 PILOT: Commercial and Commercial Rotorcraft
 TOTAL HOURS: 4600 ALL TYPES 300 ON TYPE
 LAST 90 DAYS: Unknown ALL TYPES 98 ON TYPE
 DAMAGE: Substantial
 CASUALTIES: Crew: 2 uninj.

OCCURRENCE: While attempting to lift a load the helicopter's number one engine lost partial power when a turbine blade failed. The crew were unsure as to what had happened, and allowed the rotor speed to deteriorate. The pilot made an autorotation landing down wind, which resulted in the main rotor blades chopping off the tailboom.

Investigation concluded that the power turbine rotor blade failed due to a fatigue pre-crack starting at the leading edge of the blade. The exact cause of the fatigue initiation could not be positively determined. (LP 288/82)

82-P20054

Piper PA31-350

C-GFBL

DATE: 12 Aug 1982 1929 PDT

OPERATION: Private business

PLACE: 6 mi NW of Campbell River BC 50/04N 125/22W

LOCALE: Tree-covered hills 700' asl

WEATHER: Vis 10+ cloud 400' overcast with rain and fog patches

PILOT: Private

TOTAL HOURS:	775	ALL TYPES	400	ON TYPE
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LAST 90 DAYS:	7	ALL TYPES	7	ON TYPE
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DAMAGE: Destroyed

CASUALTIES: Crew: 1 fatal; pass: 2 fatal.

OCCURRENCE: While attempting a special VFR radar assisted ILS approach, the pilot allowed the aircraft to enter cloud - he became disoriented and entered a flat spin. The aircraft impacted the ground and was consumed by fire.

During the approach the pilot was confused and unable to follow instructions. Although the weather was well below VFR in spots, it was substantially as forecast and the pilot was aware of the anticipated weather conditions.

The aircraft had descended vertically in a nearly flat, left wing low attitude. There were no tree strikes on entry. The distortion and damage to both propellers indicated that power was being developed at impact. There was no evidence of aircraft malfunction.

It is probable that the pilot was suffering from fatigue. For the last few days, he had been putting in many hours, upgrading his airstrip.

Postmortem examination revealed carbon monoxide levels that were much higher for the pilot than the two passengers. Examination of the possible pre-flight sources of contamination resulted in negative findings. The absorption of carbon monoxide obviously did not occur during the flight, as the three occupants were sharing a common environment. The pilot did not exhibit any signs of respiration following impact; if death occurred on impact there would be no possibility of carbon monoxide absorption at

this point. However, had he survived for only a few minutes, it is possible that he may have absorbed carbon monoxide without displaying the usual trachial evidence of respiration. The transcript of radio communications between the pilot and FSS operator and the Duty Controller at Comox did not reveal any indications of pilot incapacitation.

82-P20066

Piper PA28R-180

C-FUKE

DATE: 20 Oct 1982 2010 PDT

OPERATION: Private Business

PLACE: 4 NM W of Nanaimo Arpt BC 49/02N 123/58W

LOCALE: Tree-covered mountains 1000' asl

WEATHER: Wind calm vis 8 cloud 4000' overcast temp 8°C

PILOT: Private

TOTAL HOURS:	1070	ALL TYPES	723	ON TYPE
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LAST 90 DAYS:	38	ALL TYPES	38	ON TYPE
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DAMAGE: Destroyed

CASUALTIES: Crew: 1 fatal; pass: 2 fatal

OCCURRENCE: The pilot intended to fly from Swift Current to Nanaimo, with a refuelling stop in Lethbridge. The first leg was uneventful and, after he obtained a weather briefing, he departed Lethbridge on a VFR flight plan. Approaching Penticton, the pilot requested the enroute weather conditions. On the strength of the information received, he filed an IFR flight plan for the remainder of the trip. The flight progressed normally and clearance was granted for an approach to Nanaimo Airport. The pilot contacted Nanaimo FSS, obtained traffic and weather information, and expressed his intention to come straight in from the beacon rather than do a full approach. When he reported by the beacon, he asked if the runway lights were on. He was advised that the lights for runway 16 were on and acknowledged the transmission. Nothing further was heard from the aircraft.

The wreckage was located four NM west of the airport. The aircraft, in level flight, had struck treetops at approximately 1,000 feet ASL, then descended on a heading of 250 degrees magnetic. Investigation revealed no evidence of pre-impact failure or malfunction of the engine, airframe, or controls. The aircraft was well equipped for IFR flight and the pilot, who was suitably trained and qualified, spent considerable time practicing IFR procedures in order to maintain proficiency. There was no pathological evidence of physical incapacitation.

Pilots who arrived in Nanaimo just before and after the accident, reported that the visibility was greater than the distance from the beacon to the airport. The instrument approach procedure requires visual reference from the beacon inbound at 1,000 feet, heading 158 degrees magnetic for 4.1 nautical miles. If visual reference is lost, an immediate missed approach on a track of 070 degrees magnetic is to be carried out.

The left main landing gear indicator light was not illuminated at impact, and the right main landing gear indicator light had probably burned out sometime prior to impact. It is possible that the lack of indicator lights on the main landing gear distracted the pilot from correcting the track deviation which culminated in terrain impact.

82-P20068

Bell 206B

C-FDYH

DATE: 29 Oct 1982 1205 PDT

OPERATION: Charter

PLACE: near Anderson Camp BC 54/57N 121/28W

LOCALE: Tree-covered mountains

WEATHER: Wind S 10 kt vis 3 sky obscured with snow

PILOT: Commercial Rotorcraft

TOTAL HOURS:	5700	ALL TYPES	1650	ON TYPE
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LAST 90 DAYS:	156	ALL TYPES	156	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 serious; pass: 1 fatal

OCCURRENCE: While enroute, at approximately 200 feet AGL, the engine lost power and the pilot entered an autorotation. During the attempted landing, the helicopter struck a large tree then fell vertically to the ground. During the impact sequence, the pilot lost consciousness for an unknown length of time, but was eventually able to walk several miles to a construction camp and report the occurrence.

Extensive investigation failed to reveal any cause for the loss of engine power. (LP 383/82)

82-P20072

Piper PA18-150

C-GTXK

DATE: 4 Dec 1982 1100 PST

OPERATION: Specialty training

PLACE: Alouette Lake BC 49/20N 122/26W

LOCALE: Lake water area 3100' by 3000' 410' asl

WEATHER: Wind calm vis 15+ cloud 3000' broken temp 3°C

PILOT: Private

TOTAL HOURS:	92	ALL TYPES	13	ON TYPE
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LAST 90 DAYS:	26	ALL TYPES	13	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 1 fatal

OCCURRENCE: The pilot of the floatplane flew over his intended landing area checking for possible obstructions; he then carried out a flapless approach at 80 mph. There was a slight ripple on the lake surface and touchdown was normal. Suddenly, the aircraft swerved violently to the left and right until one or both floats dug in and it nosed over.

82-P20801

Cessna 172K

C-GSKJ

DATE: 9 Oct 1982 1810 PDT

OPERATION: Private recreation

PLACE: Invermere BC 50/30N 115/52W

LOCALE: Tree-covered mountains 3900' asl

WEATHER: Wind calm vis 25 cloud 26000 scattered temp 10°C

PILOT: Private

TOTAL HOURS:	133	ALL TYPES	58	ON TYPE
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LAST 90 DAYS:	29	ALL TYPES	29	ON TYPE
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DAMAGE: Destroyed

CASUALTIES: Crew: 1 fatal

OCCURRENCE: C-GSKJ, a C172, departed Invermere in company with CF-FJS and another C-170 for a flight to Calgary. The two 170 pilots had flown together often, sometimes in formation; they were not to formate on this occasion, but fly in stream with CF-FJS in the lead. During the climb towards a mountain range, the lead pilot kept the others advised of his intended manoeuvres, and at one point asked for a position report from C-GSKJ. The reply was "about 3/4 mile behind and slightly above". A few minutes later, the pilot of C-GSKJ radioed "I'm coming up on you". This transmission was immediately followed by the collision between C-GSKJ and CF-FJS.

The pilot of CF-FJS was able to regain control of the aircraft and land successfully. Witnesses first observed C-GSKJ in a spiral dive; the aircraft returned to a wings-level attitude but continued to descend. Impact and post-crash fire damage precluded the possibility of determining whether the aircraft was fully controllable after the collision, or if the pilot was capable of reassuming control.

82-P20802

Cessna 170B

CF-FJS

DATE: 9 Oct 1982 1810 PDT

OPERATION: Private recreation

PLACE: Invermere BC 50/31N 115/53W

LOCALE: Tree-covered mountains 3900' asl

WEATHER: Wind calm vis 25 cloud 26000 scattered temp 10°C

PILOT: Private

TOTAL HOURS:	2079	ALL TYPES	350	ON TYPE
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LAST 90 DAYS:	25	ALL TYPES	25	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; other aircraft: 1 fatal

OCCURRENCE: C-GSKJ, a C172, departed Invermere in company with CF-FJS and another C-170 for a flight to Calgary. The two 170 pilots had flown together often, sometimes in formation; they were not to formate on this occasion but fly in stream with CF-FJS in the lead. During the climb towards a mountain range, the lead pilot kept the others advised of his intended manoeuvres, and at one point asked for a position report from C-GSKJ. The reply was "about 3/4 mile behind and slightly above". A few minutes later, the pilot of C-GSKJ radioed "I'm coming up on you". This transmission was immediately followed by the collision between C-GSKJ and CF-FJS.

The pilot of CF-FJS was able to regain control of the aircraft and land successfully. Witnesses first observed C-GSKJ in a spiral dive; the aircraft returned to a wings-level attitude but continued to descend. Impact and post-crash fire damage precluded the possibility of determining whether the aircraft was fully controllable after the collision, or if the pilot was capable of reassuming control.

82-P20904

Boeing 75

N55626

DATE: 12 June 1982 1200 PDT

OPERATION: Private - recreation

PLACE: 9 mi N of Skookumchuck, B.C.

LOCALE: Flat grass and gravel-covered strip

WEATHER: Wind calm, vis 15+, sky clear

PILOT: Private

TOTAL HOURS:	600	ALL TYPES	275	ON TYPE
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LAST 90 DAYS:	12	ALL TYPES	2	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj.

OCCURRENCE: The pilot reported that, after visually inspecting the farm strip from the air, he approached intending to do a 3-point landing from a full stall. The aircraft was flared 2 to 3 feet above the ground, stalled, and touched down on the tail wheel. Shortly thereafter control was lost. The tail wheel lifted, causing the propeller to strike the soft turf several times before stopping in a vertical position. The aircraft flipped inverted.

The pilot could not offer an explanation for the loss of control, but felt that more recent experience on type may have enabled him to salvage the situation. A loss of control of this kind usually results from improper or excessive braking.

82-P20905

Cessna 172

N8404L

DATE: 4 August 1982 1410 PDT

OPERATION: Private - recreation

PLACE: near Vargas Island, B.C. 49/09N 126/01W

LOCALE: Water area at sea level

WEATHER: Wind W 6 kt, vis variable, sky obscured, temp 16°C

PILOT: Private

TOTAL HOURS:	550	ALL TYPES	475	ON TYPE
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LAST 90 DAYS:	Unknown	ALL TYPES	Unknown	ON TYPE
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DAMAGE: Destroyed

CASUALTIES: Crew: 1 fatal; pass: 1 fatal

OCCURRENCE: The American pilot and his wife flew, with friends, to Vargas Island for an overnight camping visit. Their aircraft was one of a group of four that made the trip. They were unable to return home the next morning as low cloud and fog were widespread in the area. By early afternoon, Tofino FSS was reporting VFR conditions locally, but warned of reduced visibility in fog to the west; Tofino is 20 km southeast of Vargas Island. The pilot, pressed by business concerns at home, decided to attempt the flight. His friends also decided to leave, although they were under no pressure to get home.

The pilot and his wife were second in line for take-off. Their friend in the number 1 aircraft radioed that he had climbed through a fog bank after take-off, regaining VFR conditions at approximately 1100 ft ASL. VFR on top is legal in the USA but not in Canada. The second aircraft took off and was not heard from again. The third and fourth aircraft took off, but elected to return for landing because of the low visibility. They were able to depart an hour or so later. Once airborne, they confirmed by radio that the second aircraft had not reached its destination. They contacted Tofino FSS to request Search and Rescue be notified; the wreckage was found in forty feet of water about one-half mile off the shore of Vargas Island.

The aircraft was destroyed on impact. Damage patterns indicated that it struck the surface in a steep, nose-down attitude, while the engine was producing substantial power. Investigators concluded that the pilot became disoriented while attempting to climb through fog, and lost control of the aircraft.

82-P20906

Cessna 180

N2577K

DATE: 27 Aug 1982 1908 PDT

OPERATION: Private recreation

PLACE: Jervis Inlet BC 49/55N 123/53W

LOCALE: Glassy water at sea level

WEATHER: Wind calm vis 8 cloud 1500' broken

PILOT: Unknown

TOTAL HOURS:	7341	ALL TYPES	153	ON TYPE
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LAST 90 DAYS:	35	ALL TYPES	35	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 2 uninj.

OCCURRENCE: The pilot circled the inlet to check for obstructions, then set up an approach to the west, away from the shoreline. The glassy water provided little or no visual reference for the landing flare; on touchdown, the front of the floats dug in causing the aircraft to flip inverted.

82-P20907

Maule M-4

N40676

DATE: 26 Dec 1982 1400 YST

OPERATION: Private recreation

PLACE: 40 mi S of Carcross BC 59/40N 135/10W

LOCALE: Snow-covered mountains

WEATHER: Cloud scattered vis 0 in fog and snow

PILOT: Private

TOTAL HOURS:	450	ALL TYPES	200	ON TYPE
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LAST 90 DAYS:	180	ALL TYPES	20	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 minor; pass: 1 minor

OCCURRENCE: The pilot was on a VFR flight plan when the weather began to deteriorate. He continued and eventually entered a narrow canyon where fog and snow were encountered.

While at 200 feet above the canyon floor, the pilot completed a 180 degree turn very close to the floor of the canyon. Finally a wall of rock appeared straight ahead which could not be avoided. The pilot elected to stall the aircraft and spun it to the ground.

82-P25001

Lazair Ultra-Light

Not Reg.

DATE: 10 May 1982 1230 PDT

OPERATION: Private recreation

PLACE: 20 km SSW of Prince George, BC 53/43N 122/52W

LOCALE: Lake water area 2500' asl

WEATHER: Wind SSE 6 kt vis 15+ cloud 4500' scattered temp 10°C

PILOT: Private

TOTAL HOURS:	389	ALL TYPES	1	ON TYPE
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LAST 90 DAYS:	16	ALL TYPES	1	ON TYPE
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DAMAGE: Destroyed

CASUALTIES: Crew: 1 fatal

OCCURRENCE: The ultra-light aircraft had taken off and flown in the local area for a short period. Witnesses observed the aircraft proceed north over the lake at about 300 feet. As it passed the shore, it wobbled a bit and then straightened out. A short distance over the lake, the aircraft suddenly pitched nose-down and impacted the ice; the pilot received fatal injuries.

Investigation revealed that the structure, control integrity and engines were serviceable before impact. The autopsy report indicated that the pilot had possibly suffered a heart attack rendering him incapable of controlling the aircraft.

82-P25003

Lazair Ultra-Light

None

DATE: 30 May 1982 1230 PDT

OPERATION: Private recreation

PLACE: Quesnel BC 53/00N 122/31W

LOCALE: Flat compact roadway

WEATHER: Wind SE 3 kt vis 15 temp 21°C

PILOT: Not licensed

TOTAL HOURS:	63	ALL TYPES	50	ON TYPE
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LAST 90 DAYS:	50	ALL TYPES	50	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 fatal

OCCURRENCE: The ultralight was observed taking off from a small field and making a climbing turn of 180 degrees over some power lines. It flew along the north side and then started a left turn to come back over the field - suddenly it went into a very steep bank angle and descended. The left wing tip leading edge struck one of the lines and the aircraft cartwheeled, hit a telephone pole, and then crashed inverted.

Witnesses reported gusting winds and the pilot had reported this condition earlier. This area of rising terrain is subject to variable and gusting winds.

It is concluded that the aircraft encountered a sudden strong gust of wind during a low-level turn.

82-P25004

Lazair Ultra-Light

None

DATE: 23 Jun 1982 1456 PDT

OPERATION: Private recreation

PLACE: Knutsford BC

LOCALE: Mid-air over open fields

WEATHER: Not applicable

PILOT: Private

TOTAL HOURS:	Unknown	ALL TYPES	95	ON TYPE
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LAST 90 DAYS:	Unknown	ALL TYPES	Unknown	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 serious

OCCURRENCE: After practising basic manoeuvres for about 20 minutes, the pilot decided to climb to a higher altitude. As he did, the elevator control rod broke and the mixer box dropped and jammed the ailerons, rendering the aircraft uncontrollable. All attempts to change the attitude failed, and the aircraft contacted the ground at an estimated 70 degree angle.

Laboratory examination of the failed torque tube concluded that the rivets holding the aluminum plug in the end of the tube failed in tension due to a single overload application. The high load required to fail the rivets ruled out operating loads as cause of the failure. (LP 32/83)

82-P25006

Lazair Ultra-light

None

DATE: 28 Jul 1982 2000 PDT

OPERATION: Private training

PLACE: 6 miles S of Prince George BC 53/45N 122/50W

LOCALE: Rolling grass-covered area 2500' ASL

WEATHER: Wind SE 4 kt vis 15+ sky clear temp 20°C

PILOT: Unlicensed

TOTAL HOURS:	4	ALL TYPES	4	ON TYPE
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LAST 90 DAYS:	4	ALL TYPES	4	ON TYPE
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DAMAGE: Destroyed

CASUALTIES: Crew: 1 fatal.

OCCURRENCE: The pilot was to practise stalls at about 1000 feet agl. At about 300 or 400 feet, he performed one stall. On the second attempt, the aircraft pitched down in an almost vertical attitude and impacted the ground.

The pilots grand total of 4 hours was all on the Lazair and this was the first flight where he did not use his radio to receive instructions from an instructor. Physical evidence and witness reports indicate that the engines were delivering considerable power up to impact. One witness reported seeing the left

ruddervator in an "unnaturally far down position". A fracture of the rod and fitting connecting the control column to the control mixer, was examined and revealed that the failure was from instantaneous bending overload likely caused when the aircraft struck the ground (LP 264/82).

The cause of the accident remains undetermined.

Several other similar accidents indicate problems with the design and performance of the aircraft. A project has been opened to research the problem (LP 339/82).

82-P25007

Skyseeker Ultralight

None

DATE: 5 Aug 1982 1025 PDT

OPERATION: Private training

PLACE: Cloverdale BC 49/08N 122/44W

LOCALE: Large hay field

WEATHER: Wind calm sky overcast

PILOT: Unlicensed

TOTAL HOURS:	2	ALL TYPES	2	ON TYPE
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LAST 90 DAYS:	Unknown	ALL TYPES	98	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 serious

OCCURRENCE: While undergoing initial training on an ultralight type aircraft, the pilot inadvertently allowed the aircraft to stall as he was about to descend for landing.

Although he successfully recovered, he then over-corrected; the aircraft porpoised, entered a stall, then struck the ground and overturned.

83-P30001

Taylorcraft BCS-65

C-FMVA

DATE: 15 Jan 1983 1133 PST

OPERATION: Private recreation

PLACE: Butler Field BC 48/33N 123/25W

LOCALE: Grass runway 1950' by 200' 350' asl

WEATHER: Wind W 3 kt vis 30 sky clear temp 4°C

PILOT: Commercial

TOTAL HOURS:	1400	ALL TYPES	1000	ON TYPE
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LAST 90 DAYS:	40	ALL TYPES	40	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj.

OCCURRENCE: The pilot departed on a 30 minute local flight following normal pre-flight checks. He used carb heat during taxi because the grass runway was covered with frost. On return he landed, selected carb heat cold and taxied to the far end for another take-off. Upon reaching the far end, he turned and applied full power for take-off. At lift-off, the engine stopped and the aircraft glided over a cliff toward an embankment. The pilot attempted to turn to land on a road but the aircraft stalled and crashed nose-down beside the road. Thanks to his shoulder harness, the pilot escaped uninjured.

Investigation revealed no mechanical discrepancy that would cause engine failure. Laboratory examination of fuel from the aircraft and refuelling facility showed no evidence of fuel contamination. Atmospheric conditions were highly conducive to carb icing, and this would be aggravated by the propeller picking up water from the grass strip. Since the pilot did not use carb heat, it is concluded that carb icing caused the engine failure. (LP 465/83 refers)

83-P30002

Bell 214B-1

C-GBHH

DATE: 16 Jan 1983 1250 PST

OPERATION: Charter

PLACE: Rory Creek BC 50/40N 116/47W

LOCALE: Rocky mountainous area 7500' asl

WEATHER: Wind light vis 15+ cloud scattered

PILOT: Commercial

TOTAL HOURS:	3963	ALL TYPES	7	ON TYPE
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LAST 90 DAYS:	57	ALL TYPES	7	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 serious; pass: 2 fatal.

OCCURRENCE: The pilot was transporting two passengers to a ski area. As the helicopter cleared the highest point of the slope, he heard a loud bang and the aircraft yawed violently to the right and pitched nose-down. The pilot was unable to control the rotation; the helicopter fell on a rocky ledge, scattering pieces of wreckage as it slid down an avalanche chute.

The pilot was unaware that his passengers had placed their skis in the external basket, and therefore hadn't checked they were secure. They were blown out of the basket by the slipstream and struck the elevator, vertical fin and tail rotor. This caused the complete tail rotor assembly to be torn away from the fin. In any case, the heavy-duty bungee cords were not designed to hold a small number of skis; a more secure cover should have been used. (LP84/83, LP95/83)

83-P30003

Bell 206B

C-GLDS

DATE: 21 Jan 1983 1321 PST

OPERATION: Charter

PLACE: 5 mi SW of Port Hardy BC 50/38N 127/27W

LOCALE: Log-strewn area in mountainous terrain 420' asl

WEATHER: Wind calm vis 20 cloud 1500' broken temp 5°C

PILOT: Commercial

TOTAL HOURS:	13812	ALL TYPES	4080	ON TYPE
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LAST 90 DAYS:	110	ALL TYPES	110	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj.

OCCURRENCE: The pilot had started to lift a sling load when the engine quit; a hard landing followed an autorotation into a rough, log-strewn area.

Technical examination revealed that the fuel pump drive shaft splines had failed due to wear and associated spalling. This in turn was caused by deterioration of the lubricant. The technical log showed that the pump had not been inspected or lubricated for a period of 904 hours; this exceeded the mandatory 500 hour check. (LP 60/83)

83-P30004

Piper PA-34

C-GTFG

DATE: 27 Jan 1983 1730 PST

OPERATION: Private business

PLACE: Sechelt Arpt BC 49/28N 123/43W

LOCALE: Paved runway 2400' by 75' 250' asl

WEATHER: Wind calm vis 12 cloud 2000' overcast temp 11°C

PILOT: Airline Transport

TOTAL HOURS:	15000	ALL TYPES	2200	ON TYPE
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LAST 90 DAYS:	50	ALL TYPES	50	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 3 uninj.

OCCURRENCE: The pilot landed in very heavy rain and immediately applied maximum braking. The left landing gear collapsed, and the aircraft skidded off the left side of the runway.

It was determined that the failure was a result of an instantaneous overload of the forward support fitting. No evidence of pre-existing cracks, defects or fatigue was found. The cast material met the manufacturer's specifications; however, Piper now uses a stronger forged fitting.

83-P30005

Piper PA-12

C-FNZP

DATE: 6 Feb 1983 1500 MST

OPERATION: Private recreation

PLACE: Sikanni Chief River BC 57/15N 124/08W

LOCALE: Flat snow-covered area 4800' asl

WEATHER: Wind light vis 15+ sky overcast

PILOT: Private

TOTAL HOURS:	1630	ALL TYPES	1500	ON TYPE
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LAST 90 DAYS:	50	ALL TYPES	50	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj.

OCCURRENCE: The aircraft was taking off from a flat, snow-covered lake surface. The pilot reported that on the take-off run, the right ski hit a snow-bank and collapsed, then the aircraft groundlooped.

The pilot and passenger evacuated the aircraft and turned on the ELT; they then proceeded to a cabin on the shore where they stayed overnight.

The snow-drift on the lake was not readily visible due to overcast conditions with diffused sunlight, and glare from the snow.

DATE: 8 Feb 1983

OPERATION: Private recreation

PLACE: 10 mi N of Carmi Beacon BC 49/38N 119/10W

LOCALE:

WEATHER: Sky overcast with snow

PILOT: Private

TOTAL HOURS:	1000	ALL TYPES	Unknown	ON TYPE
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LAST 90 DAYS:	Unknown	ALL TYPES	Unknown	ON TYPE
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DAMAGE:

CASUALTIES: Crew: 1 fatal; pass: 1 fatal

OCCURRENCE: Though weather had deteriorated, the pilot, who was neither night nor instrument rated, took off without a flight plan for a return flight home. Some four hours later, he contacted a Flight Service Station and advised that he was in cloud between 11,000 and 12,000 feet and lost. They attempted to help but lost radio contact with him.

Search and Rescue attempts to locate the aircraft were unsuccessful.

83-P30007

Cessna 182P

C-GAXJ

DATE: 21 Feb 1983 1320 PST

OPERATION: Private recreation

PLACE: 1 km N of Langley Arpt BC 49/06N 122/38W

LOCALE: Flat grass-covered area 34' asl

WEATHER: Wind calm vis 15+ sky clear temp 13°C

PILOT: Private

TOTAL HOURS:	190	ALL TYPES	53	ON TYPE
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LAST 90 DAYS:	5	ALL TYPES	5	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 serious; pass: 2 minor

OCCURRENCE: The pilot had just taken off when the engine failed. Unable to regain power, he landed straight ahead into rising ground.

Although the pilot had drained some water from the fuel tanks prior to departure, a further pint was drained after the accident.

The pilot had been aware of water leakage through the filler caps and had attempted to rectify the problem himself. The changes proved unsuccessful as the right cap still allowed water to enter the tank.

Heavy rainfall the month before, and the fact the aircraft was parked outside and not flown during this time, explains why there was so much water in the fuel tanks.

83-P30008

Cessna 170B

C-GXTV

DATE: 19 Feb 1983 1400 PST

OPERATION: Private business

PLACE: McConnell Lake BC 56/54N 126/31W
LOCALE: Snow-covered lake
WEATHER: Wind S 9 kt vis 15+ sky clear temp -15°C
PILOT: Private

TOTAL HOURS:	1840	ALL TYPES	1450	ON TYPE
LAST 90 DAYS:	Unknown	ALL TYPES	Unknown	ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 2 uninj.

OCCURRENCE: The pilot was forced to abort his take-off when the aircraft did not accelerate properly during a downwind take-off. The pilot reported that while attempting a turn to the left during a high speed taxi, the right ski dug in some soft snow and the aircraft groundlooped to the right.

83-P30009

Bell 212

C-GAHO

DATE: 25 Feb 1983 0855 PST

OPERATION: Charter

PLACE: Bugaboo Lodge BC 50/43N 116/40W

LOCALE: Snow-covered mountains

WEATHER: Wind SW 10 kt vis 15 cloud 9000' overcast temp -1°C

PILOT: Commercial Rotorcraft

TOTAL HOURS:	2440	ALL TYPES	180	ON TYPE
LAST 90 DAYS:	160	ALL TYPES	160	ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj.

OCCURRENCE: While off-loading skis, the guide forgot a mono ski in the basket and put the hold-down straps in the stowed position. On the return flight to the lodge, the ski flew out while the helicopter was descending, striking the right hand elevator and both tail rotor blades. The flight and landing were completed without difficulty.

The operator has since modified his aircraft to preclude a recurrence.

83-P30010

Cessna 180C

C-GPCG

DATE: 1 Mar 1983 1230 PST

OPERATION: Private business

PLACE: Vanderhoof BC 54/02N 124/00W

LOCALE: Snow covered field 2000' asl

WEATHER: Wind calm vis 2 cloud 2500 overcast temp -7°C

PILOT: Commercial

TOTAL HOURS:	1650	ALL TYPES	275	ON TYPE
LAST 90 DAYS:	25	ALL TYPES	6	ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj.

OCCURRENCE: The pilot had intended an almost direct VFR flight from Williams Lake to Vanderhoof. After encountering lowering cloud, he attempted a more circuitous route, but was unable to find the destination airport because of low ceilings and reduced visibility. Rather than attempt to back-track to Prince George, he elected to land in a stubble field. The aircraft nosed over in the snow.

Prior to take-off, the pilot had received a destination area forecast, indicating VFR conditions. He had not taken into account the risk of fog and low ceilings in the valleys. Also he could not have known that the Vanderhoof VFR weather report originated at a forestry station several miles distant at a different elevation. However, had he called the FSS at Prince George, he would have been advised of two recent PIREPs indicating conditions lower than anticipated.

83-P30011

Bell 212

C-GIRZ

DATE: 4 Mar 1983 0910 PST

OPERATION: Charter

PLACE: Monashee Mountains BC 52/19N 118/59W

LOCALE: Snow-covered mountains 6000' asl

WEATHER: Wind calm vis 15+ sky clear temp -7°C

PILOT: Commercial and Commercial Rotorcraft

TOTAL HOURS:	4100	ALL TYPES	250	ON TYPE
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LAST 90 DAYS:	56	ALL TYPES	52	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 11 uninj

OCCURRENCE: During take-off from a featureless area, blowing snow caused the pilot to lose visual reference. When the whiteout condition became more severe than anticipated, the pilot aborted the take-off. He attempted to land with insufficient visual reference.

The helicopter struck the snow in a nose-down, right skid low attitude, which after a ground run of 85 feet caused an overturn.

83-P30012

Cessna 180

C-GMOO

DATE: 5 Mar 1983 1130 PST

OPERATION: Private training

PLACE: Matsqui BC 45/09N 122/19W

LOCALE: Soft corn-stubble field

WEATHER: Wind NE 10 kt vis 10 cloud 7000' broken temp 10°C

PILOT: Commercial licence

TOTAL HOURS:	725	ALL TYPES	350	ON TYPE
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LAST 90 DAYS:	15	ALL TYPES	5	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj.

OCCURRENCE: While on the downwind leg, the aircraft engine quit when the prop pitch mechanism moved to the full coarse setting. Examination revealed a fatigue failure in the pitch change mechanism. The engine could not maintain power with the overloaded condition of propellers at the full coarse position.

During the subsequent forced landing, the aircraft struck a fence wire and nosed over.

The fatigue cracking was undetectable by conventional inspection means, however a Service Bulletin (which was discontinued prior to the accident) may have provided the information on methods of detection.

83-P30013

Cessna T-337-B

C-FLHC

DATE: 7 Mar 1983 1325 PST

OPERATION: Private recreation

PLACE: Courtenay Air Park BC 49/41N 124/59W

LOCALE: Grass runway 1974' by 75' 9' asl

WEATHER: Wind SE 9 kt vis 15 cloud 800' scattered temp 9°C

PILOT: Private

TOTAL HOURS:	370	ALL TYPES	35	ON TYPE
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LAST 90 DAYS:	14	ALL TYPES	4	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj.

OCCURRENCE: The pilot had received a weather briefing prior to departure. On arrival, he checked a military advisory frequency from which he understood he would have to accept a quartering tail wind of 6 knots to land on runway 30. He decided to do this.

After touchdown, he braked hard but the aircraft left the right side of the runway approximately 1500 feet from the threshold; it slid parallel to the runway until the left main wheel struck the edge of the blacktop taxiway causing the left main landing gear to collapse.

A special weather report at an airport 4 miles away was issued 15 minutes after the accident, and surface winds were 140° at 9 knots. The data in the Owner's Manual calls for a landing distance of 1500 feet on a hard surfaced runway. Adding 27% for a dry grass surface, and 10% for each 5 knots of tail wind results in a required landing distance in excess of 2000 feet.

Although the aircraft was not at maximum gross weight, it is probable that, had the pilot selected the into wind runway, he would have been able to stop the aircraft in the space available.

83-P30014

Bell 206B

C-GQZL

DATE: 18 Mar 1983 1330 PST

OPERATION: Private business

PLACE: Indian Lake BC 53/25N 121/23W

LOCALE: Tree-covered hills

WEATHER: Vis 15+ cloud 5000' broken

PILOT: Commercial

TOTAL HOURS:	800	ALL TYPES	110	ON TYPE
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LAST 90 DAYS:	60	ALL TYPES	60	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 1 uninj.

OCCURRENCE: Shortly after take-off, the tail rotor chip light came on and the pilot landed. After referring to the aircraft manual, he decided to air taxi a short distance to a site to check out the problem.

After another take-off, the pilot attempted to fly through a narrow gap between some trees but misjudged the clearance; the main rotor struck a tree, the pilot lost control and the helicopter landed heavily.

Examination of the gear box showed no evidence of failure. The reason for the malfunction could not be determined.

83-P30015

Cessna 140

CF-JYC

DATE: 23 Mar 1983 0830 PST

OPERATION: Private recreation

PLACE: Duncan BC 48/45N 123/43W

LOCALE: Gravel runway 1600' by 75' 310' asl

WEATHER: Wind E 8 kt vis 15 cloud 3000' broken temp 7°C

PILOT: Private

TOTAL HOURS:	875	ALL TYPES	Unknown	ON TYPE
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LAST 90 DAYS:	Unknown	ALL TYPES	Unknown	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj.

OCCURRENCE: In his report of the accident, the pilot stated that he experienced light turbulence while on final approach. In addition to this, a heavy rain shower obscured his vision. He landed long and the aircraft bounced several times and floated before brakes could be used. Insufficient runway remained, and the aircraft overran the end and nosed over.

83-P30016

Cessna A185F

C-GYJV

DATE: 24 Mar 1983 1830 PST

OPERATION: Charter

PLACE: Sukunka River BC 55/09N 121/55W

LOCALE: Snow-covered runway 1650' by 100' 2567' asl

WEATHER: Wind light vis 10+ cloud 3000' broken temp -5°C

PILOT: Commercial

TOTAL HOURS:	2500	ALL TYPES	300	ON TYPE
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LAST 90 DAYS:	172	ALL TYPES	35	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj.

OCCURRENCE: The pilot arrived over the airstrip, and carried out a low approach to inspect the runway. He was aware of some snow on the ground, but estimated that he could land safely.

He made a power on, tail-down approach and as the aircraft slowed, the wheels began to sink in the snow. He attempted to overshoot but the wheels sank in and the aircraft overturned.

83-P30017

Cessna 180J

C-FIZB

DATE: 25 Mar 1983 1300 PST

OPERATION: Private ferry

PLACE: Vancouver Int'l Arpt BC 49/11N 123/11W
LOCALE: River water area 2 000' by 1 500' at sea level
WEATHER: Wind S 6 kt vis 20 cloud 3 000' scattered temp 12°C
PILOT: Commercial
TOTAL HOURS: 3250 ALL TYPES 1100 ON TYPE
LAST 90 DAYS: 200 ALL TYPES 100 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj; pass: 1 uninj.

OCCURRENCE: The pilot landed immediately when the engine lost power just after take-off from Middle Arm. Four or five cups of water were drained from the gascolator, and one cup was taken from the right wing cell. After a run-up, the pilot took off again. At about 100 feet agl, the engine failed completely and the pilot attempted a sharp, 180 degree descending turn over the river to avoid a bridge. He was unable to make the full turn; the aircraft landed heavily on the right float, and ran onto the rocky shore.

The aircraft had been parked outside and hadn't been flown for some time. During the investigation, 200 ml of water were drained from the carburettor fuel float chamber and gascolator. All four fuel caps and cap seating areas were found corroded - the cap seals needed replacement or lubrication.

A complete, 200 hour aircraft inspection was performed in December, but the documentation was not signed by the AME until late February. A short test flight was undertaken on the same day to certify the CCI; however, it could not be explained why the water had not affected that flight. No fuel had been added since early November, and it is doubtful that such a large quantity of water could have been ingested after the test flight. If the aircraft had been examined for possible deterioration between December and February, the unserviceable caps would have been discovered.

On the day of the accident, both the pilot and owner tested for water during the initial pre-flight check; however, the aircraft was parked on a slope and the water went undetected because it had collected forward of the fuel drains. Also, a check for water after the first engine failure did not detect the extent of the problem. It appears that the accepted practice of draining the fuel tanks sump and gascolater does not purge the system of water. (LP 143/83)

83-P30018

Harvard IV

CF-SPC

DATE: 26 Mar 1983 0950 PST
OPERATION: Private recreation
PLACE: Satellite Channel BC 48/39N 123/25W
LOCALE: Water area at sea level
WEATHER: Wind SE 13 kt vis 15+ sky clear
PILOT: Private
TOTAL HOURS: 1700 ALL TYPES 350 ON TYPE
LAST 90 DAYS: 10 ALL TYPES 10 ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 1 uninj.

OCCURRENCE: While approaching to land at Victoria Airport following a 20 minute flight, the pilot noticed the fuel pressure fluctuating; shortly after a complete power loss occurred. Switching tanks and using the wobble pump did not resolve the problem so the pilot decided to ditch the aircraft in the sea. After touching down smoothly on the water, he and his passenger abandoned the aircraft and swam to shore, 250 feet away.

The aircraft was examined after it was removed from the water. No abnormalities were found in the fuel system to explain the loss of pressure. There were thirty gallons of fuel in the right tank, but less than a gallon in the left.

The pilot reported that prior to departure, the right tank contained 35 gallons, and the left tank 12 to 15. He further stated that the flight was conducted using the right tank.

In view of the lack of fuel in the left tank and the thirty gallons found in the right tank, it is likely that it was the left tank that had been selected for most of, if not all the flight. The engine probably failed as a result of fuel starvation when the contents of the left tank were exhausted. The reported switching back and forth of the tanks after the failure would make it difficult to restart the engine.

Neither the pilot nor the passenger had access to a life jacket. If the circumstances had been different, and the ditching not been close to land, they may not have been able to reach shore safely.

83-P30019

Hughes 500D

C-GMSN

DATE: 26 Mar 83 1326 PST

OPERATION: Specialty construction

PLACE: Lillooette Road BC 49/12N 122/45W

LOCALE: Tree-covered mountains 800' asl

WEATHER: Wind E 13 kt vis 20 cloud 3000' scattered temp 12°C

PILOT: Commercial rotorcraft

TOTAL HOURS:	3395	ALL TYPES	2000	ON TYPE
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LAST 90 DAYS:	201	ALL TYPES	200	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 minor

OCCURRENCE: The pilot was slinging two large chunks of cedarwood weighing approximately 1,000 pounds (454 Kg). As he released the load, he felt a weight transfer, and assuming the wood had released, looked up to check his departure flight path. He then felt the helicopter jerk backward and, suspecting a snag, reactivated the release button. He then saw the hook and sling moving upwards towards the main rotor blades; he was unable to avoid them and the main rotor blades were severely damaged. The helicopter crashed into dense brush.

Apparently, one of the rope chokers had been twisted and did not release on the first attempt. The large cedar chunk caught in the pile, and as the helicopter moved away its progress was impeded. On the second attempt the choker did release. The tension on the lanyard was translated into upward movement of the hook. Neither choker contained steel thimble eyes or swivels and when tested, they snagged on the hook. There was some indication that problems with releasing the load had been experienced during the operation.

Although there was a groundman equipped with a two way radio, he was not monitoring the activities of the helicopter at the time of the accident. A review of company procedures and instructions revealed no specific directions concerning monitoring operations.

83-P30020

Bell 205A-1

C-GFHN

DATE: 28 Mar 1983 1200 PST

OPERATION: Charter

PLACE: Mount Odin BC 50/32N 118/07W

LOCALE: Snow-covered mountains 8700' asl

WEATHER: Wind gusty sky obscured with shallow fog and snow

PILOT: Commercial

TOTAL HOURS:	11200	ALL TYPES	1000	ON TYPE
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LAST 90 DAYS:	25	ALL TYPES	25	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 10 uninj.

OCCURRENCE: The helicopter was transporting skiers to a dropsite on the barren slope of a snow-covered mountain. During a landing made 1½ hours earlier, an orange streamer had been placed as a marker. Nearing touchdown on the sloping surface with a strong crosswind, flat light conditions, low clouds, and blowing snow, the pilot lost visual reference with the ground. Touchdown was 15 feet short of the marker, and lacking visual reference, the pilot soon perceived a right (downslope) rolling motion. Left cyclic was applied but he still sensed a right roll. He then applied full left cyclic and lowered the collective - the machine continued to roll right and came to rest on its right side.

The combination of landing on sloping terrain and delayed recognition due to whiteout conditions led to a dynamic rollover. Application of opposite cyclic was ineffective in countering the roll. Had the landing area been better marked, it is unlikely this accident would have occurred.

83-P30021

Piper PA24-250

C-FUZJ

DATE: 1 Apr 1983 1027 PST

OPERATION: Private recreation

PLACE: 4 miles WNW of Chehalis Lake BC 49/29N 122/05W

LOCALE: Snow-covered mountains 5300' asl

WEATHER: Sky overcast with heavy snow

PILOT: Commercial licence				
TOTAL HOURS:	805	ALL TYPES	15	ON TYPE
LAST 90 DAYS:	7	ALL TYPES	7	ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 fatal; Pass: 3 minor.

OCCURRENCE: The pilot departed Edmonton on an IFR flight to Vancouver; the aircraft was not pressurized. The planned cruising altitude was 14000 feet ASL. Shortly after reaching this height, a passenger experienced difficulty breathing, and at the pilot's request, the flight was cleared to descend to 13000 feet ASL, the minimum enroute altitude for his intended route. Two hours later, the pilot made a further descent to 10000 feet ASL. Three hours after departure, while still at 10000 feet, the aircraft entered an area of cloud and heavy precipitation. Almost immediately, engine power began to decrease because of carburettor icing, and the pilot was unable to maintain altitude. While descending through cloud he attempted to apply carburettor heat, but was unable to move the control. After repeated attempts, the right front seat passenger was able to pull out the carb heat control and engine power began to increase. Simultaneously, the aircraft (still in cloud) impacted the side of a snow covered mountain, at 5000 feet ASL.

The pilot was fatally injured in the impact, but the passengers sustained only minor injuries. The crash site was located quickly with the aid of the ELT, but rescue was delayed 30 hours because of poor weather.

It was apparent that the pilot did not have a proper appreciation of the conditions he would encounter approaching Vancouver. Despite receiving a weather briefing before the flight, he did not appear to comprehend that the last portion of the flight would be in cloud where moderate rime and clear icing were forecast.

The pilot was also either unaware of, or chose to ignore, the hazards associated with prolonged flight above 10000 feet ASL. The effects of hypoxia (lack of sufficient oxygen) are most noticeable above 10000 feet. Its early effects are an increased sense of well being, slowed reactions, and impaired thinking ability. Air Navigation Order (ANO) II No. 9, prohibits flight between 10000 feet ASL and 13000 feet ASL for more than thirty minutes, and any flight above 13000 feet ASL, without cabin pressurization or supplemental oxygen. The flight was conducted at altitudes between 10000 and 14000 feet ASL for almost 3½ hours. The aircraft was level at 13000 feet ASL for 68 minutes.

No mechanical reason could be found to explain why the carb heat control could not be moved. It is probable that the pilot's performance was significantly degraded due to hypoxia and probably led to his inability to move the carb heat control. The control unit of this aircraft requires thumb pressure to release it before it can be moved and hypoxia may have prevented compression from being applied. The passenger was likely unaware of this requirement.

It is also possible that rapid build up of ice restricted the movement of the door in the heat box, jamming the control.

It is also possible that rapid build up of ice restricted the movement of the door in the heat box, jamming the control. No mechanical reason could be found to explain the pilot's and passenger's inability to move the carb heat control.

83-P30023

Cessna 152

C-GJZW

DATE: 28 Apr 1983 1502 PDT

OPERATION: Private recreation

PLACE: Crawfish Lake BC 49/42N 126/46W

LOCALE: Gravel strip 1900' by 50' 150' asl

WEATHER: Wind variable 5 kt vis 20 cloud scattered

PILOT: Private

TOTAL HOURS:	650	ALL TYPES	250	ON TYPE
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LAST 90 DAYS:	50	ALL TYPES	50	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 minor; pass: 1 uninj.

OCCURRENCE: The pilot made a low pass over an unlicensed strip to examine the runway and determine the surface wind. The strip appeared satisfactory and the wind was deemed light and variable, so he decided to land from south to north taking advantage of the uphill grade.

On the first approach, he judged himself too high to land and went around for a second one; it was similarly flown, and touchdown was about one-third of the way along the strip. During the roll-out, braking action appeared poor. The pilot considered the uphill gradient and rising terrain beyond the strip, and decided not to attempt a go-around. The aircraft overran the end of the strip at an estimated 5 knots. The nosewheel dropped into a hole and the aircraft nosed over.

Following the accident, the pilot estimated the surface wind as southerly at 5 to 10 knots.

83-P30024

Cessna 180H

C-FUVP

DATE: 1 May 1983 1320 PDT

OPERATION: Private recreation

PLACE: Prince George BC 53/53N 122/41W

LOCALE: Paved runway 7400' by 150' 2268' asl

WEATHER: Wind NW 5 kt vis 15+ cloud 6000' scattered temp 13°C

PILOT: Commercial

TOTAL HOURS:	450	ALL TYPES	175	ON TYPE
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LAST 90 DAYS:	25	ALL TYPES	4	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 3 uninj.

OCCURRENCE: The pilot reported that shortly after landing, the aircraft veered to the left and groundlooped, damaging the right wing tip, aileron, and stabilizer. The pilot thought that perhaps one brake had failed temporarily.

In view of his stating that the brakes were working before and after the occurrence, it is probable he lost directional control due to gusting wind; although the cross-wind was light, gusts had been recorded.

83-P30025

Cessna 150M

C-GSAQ

DATE: 2 May 1983 1600 PDT

OPERATION: Private recreation

PLACE: Creston BC 49/08N 116/34W

LOCALE: Flat muddy pasture 1760' asl

WEATHER: Wind light vis 5 cloud 7000' overcast temp 11°C

PILOT: Private

TOTAL HOURS:	332	ALL TYPES	316	ON TYPE
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LAST 90 DAYS:	83	ALL TYPES	83	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 1 uninj

OCCURRENCE: The pilot was on a VFR flight from Lethbridge to Castlegar. While passing Creston, the weather deteriorated and he decided to make a precautionary landing. He could not locate the airstrip so decided to land beside a dirt road. Shortly after touchdown, the nose gear dug into soft clay and the aircraft overturned.

83-P30026

Lake LA4-200

C-FESI

DATE: 4 May 1983 0950 PDT

OPERATION: Private recreation

PLACE: Powell Lake BC 49/55N 124/32W

LOCALE: Lake water area in mountainous region

WEATHER: Wind calm cloud scattered

PILOT: Private

TOTAL HOURS:	170	ALL TYPES	105	ON TYPE
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LAST 90 DAYS:	Unknown	ALL TYPES	Unknown	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 serious; pass: 1 serious

OCCURRENCE: The pilot had planned a flight from an ocean inlet to his home airport, with a landing in a lake to wash salt water residue from the aircraft. The lake's surface was glassy, so at 500 feet agl, he set up the required 150 ft/min descent. At that point, his approach path led to a narrow area between the shore and an island, so he decided to push the nose down, descend to 150 feet, then re-establish the proper descent. Apparently he initiated action to slow his descent, but the aircraft struck the surface in a nose-down attitude without being flared, and overturned. The pilot and passenger were reportedly thrown clear, and used inflatable lifejackets which floated to the surface. The wreckage sank in deep water and was not recovered.

83-P30027

Cessna 185E

C-FUGV

DATE: 7 May 1983 1430 PDT

OPERATION: Private business

PLACE: Eutsuk Lake BC 56/23N 126/53W
LOCALE: Lake water area 2816' asl
WEATHER: Wind W 45 gusty and variable
PILOT: Private
TOTAL HOURS: 560 ALL TYPES 325 ON TYPE
LAST 90 DAYS: 30 ALL TYPES 25 ON TYPE
DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 1 uninj

OCCURRENCE: The pilot flew to a lake to do some fishing. A short time after landing, he noticed a thunderstorm approaching and decided to return to his departure point. He reported that on the take-off run just prior to getting on the step, a wind shift or strong gust lifted the left wing. Consequently, the right float dug in and the aircraft overturned.

The occupants evacuated safely, stayed on the floats, then swam the short distance to shore. They were rescued the next day after search procedures were initiated. The ELT did not function.

83-P30028

Sikorsky S58D

C-GUNN

DATE: 10 May 1983 1545 PDT

OPERATION: Charter

PLACE: 5 miles N of Stave Lake BC 49/33N 122/17W

LOCALE: Rocky mountainous area 2400' asl

WEATHER: Wind S 5 kt vis 15+ sky clear temp 18° C

PILOT: Commercial rotorcraft

TOTAL HOURS: 5000 ALL TYPES 6 ON TYPE

LAST 90 DAYS: 250 ALL TYPES 6 ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 serious, 1 uninj.

OCCURRENCE: The pilot was involved in a long-line heli-logging operation off a mountain slope. While in a high hover as the load was being lifted, the engine failed from fuel exhaustion.

Due to insufficient altitude and a prolonged hover and pedal turn (to avoid ground personnel) the autorotation was unsuccessful; the aircraft hit hard and rolled onto its side. The pilot's shoulder harness was locked at extension to accommodate a comfortable position for vertical reference, and without restraint, he received a severe facial injury.

Although a recorded quantity of fuel was taken on at mid-operation, neither pilot knew the total fuel load. A dry tank gauge indication after the accident showed 270 pounds, and fuel consumption for the various flight phases had been underestimated.

83-P30029

Cessna 182P

C-GIFC

DATE: 20 May 1983 1620 PDT

OPERATION: Specialty training

PLACE: Bralorne BC 50/46N 122/46W
LOCALE: Grass runway 3500' long 4600' asl
WEATHER: Wind variable 5 G 10 kt vis 15+ sky clear
PILOT: Commercial

TOTAL HOURS:	1067	ALL TYPES	9	ON TYPE
LAST 90 DAYS:	45	ALL TYPES	Unknown	ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 minor; pass: 2 minor, 1 uninj.

OCCURRENCE: Upon arriving over destination, the pilot carried out two low altitude runs in front of an audience. Following this, in preparation for landing, a precautionary approach and circuit were flown with full stop planned for the fourth approach. Apparently too high and fast on final, the pilot aborted the approach and set up for a fifth approach.

Due to the runway conditions (upslope and vehicle tracks), the pilot decided to land long. With full flaps extended and an IAS higher than recommended, the aircraft drifted quite a way past the intended contact point; the aircraft touched the ground less than 700 feet from the far end of the runway. Following a bounce, a brief period of flight and a second touchdown, the pilot applied heavy braking and retracted the flaps.

To avoid colliding with a bus parked at the far end of the runway, the pilot applied left rudder. The starboard wing side-swiped the rear of the bus, and the aircraft came to rest upright 90 feet beyond the end of the runway.

83-P30031

Cessna 150M

C-GIFO

DATE: 28 May 1983 1015 PDT

OPERATION: Specialty training

PLACE: Victoria Int'l Arpt 48/39N 123/25W

LOCALE: Paved runway 7000' by 200' 63' ASL

WEATHER: Wind WSW 5 kt vis 30 cloud 14000 scattered temp 24°C

PILOT: Student

TOTAL HOURS:	17	ALL TYPES	17	ON TYPE
LAST 90 DAYS:	17	ALL TYPES	17	ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj.

OCCURRENCE: The student pilot was practising solo circuits. On his sixth landing he apparently flared too high and the aircraft stalled. The subsequent hard landing collapsed the nose wheel.

83-P30032

Globe GCIB

CF-SDL

DATE: 28 May 1983 1130 PDT

OPERATION: Private recreation

PLACE: Delta Air Park BC 49/05N 122/56W

LOCALE: Wet tidal flats at sea level

WEATHER: Wind WNW 7 kt vis 30 cloud 12000 scattered temp 22°C

PILOT: Private

TOTAL HOURS:	160	ALL TYPES	100	ON TYPE
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LAST 90 DAYS:	20	ALL TYPES	20	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj;

OCCURRENCE: While the aircraft was flying in a formation, the engine failed and a forced landing was attempted; the aircraft landed in some wet tidal flats.

Investigation showed the engine failed from fuel exhaustion - a faulty fuel valve was partially in the drain position.

83-P30033

Bell 206B

C-FXPQ

DATE: 29 May 1983 1920 PDT

OPERATION: Charter

PLACE: Stakawus Creek BC 50/02N 123/43W

LOCALE: Swampy area 350' by 150' 800' ASL

WEATHER: Wind calm vis 15+ sky clear temp 24°C

PILOT: Commercial Rotorcraft

TOTAL HOURS:	5000	ALL TYPES	2600	ON TYPE
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LAST 90 DAYS:	113	ALL TYPES	113	ON TYPE
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DAMAGE: Destroyed

CASUALTIES: Crew: 1 fatal

OCCURRENCE: The pilot was engaged in a water slinging operation. On three or four occasions, another pilot engaged in the same operation saw him having problems with the bucket. Just prior to the accident, the helicopter was on the ground and the pilot was kneeling beside the bucket. Four minutes later, when the second pilot returned from his drop, he saw the helicopter lying on its side.

Examination of the wreckage revealed that the helicopter contacted the ground in an attitude of approximately 45 degrees nose-down, and 30 degrees of bank to the right. The aft section of the right skid, with bear paw attached, had separated from the fuselage attachment and had one of the wire cables from the bucket wrapped around it. The drag mark on the upper surface of the skid and a permanent set-bend in one cable, indicated that one cable was draped over the skid at take-off. The bucket had been jettisoned, but unfortunately, had snagged on the skid at lift-off; the lateral C of G shifted drastically to the right, exceeding the cyclic control limits.

83-P30035

Champion 7GCBC

C-FAQZ

DATE: 8 Jun 1983 2120 PDT

OPERATION: Private business

PLACE: Houston BC 54/26N 126/47W

LOCALE: Gravel runway 3000' by 75' 2150' asl

WEATHER: Wind ESE 3 kt vis 15+ cloud 5000' overcast

PILOT: Private
TOTAL HOURS: 390 ALL TYPES 327 ON TYPE
LAST 90 DAYS: 12 ALL TYPES 12 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj.
OCCURRENCE: The pilot stated that during the landing roll, control was lost and the left gear separated from the aircraft.

It was later discovered that the bolt holding the extreme top of the gear leg was missing the retaining nut. It could not be determined if the landing loads made the gear fail, or the failure of the gear caused the landing gyrations.

82-Q20006 Cessna 172N C-GYCZ

DATE: 16 January 1982 1255 EST
OPERATION: Charter
PLACE: Courcelles, Que. 45/52N 70/59W
LOCALE: Flat snow-covered area
WEATHER: Vis 2, cloud 3000' broken, temp -19°C
PILOT: Private
TOTAL HOURS: 58 ALL TYPES unknown ON TYPE
LAST 90 DAYS: unknown ALL TYPES unknown ON TYPE
DAMAGE: Minor
CASUALTIES: Crew: 1 uninj; pass: 1 uninj.
OCCURRENCE: While on a cross-country flight, the pilot encountered bad weather and became lost. He decided to carry out a precautionary landing on a road as the aircraft was getting low on fuel. Deciding that the road was too narrow, the pilot carried out a missed approach when the left wing struck a tree. He continued his missed approach and landed the aircraft in an adjacent snow-covered field, damaging the propeller and nosegear.

82-Q20013 Cessna 172F C-GBKY

DATE: 10 February 1982 2300 EST
OPERATION: Private - business
PLACE: Ste Therese Arpt, Que. 45/42N 73/48W
LOCALE: Ice-covered runway, 1000' by 35', 230' asl
WEATHER: Wind WSW 25 kt, vis 25, cloud 10,000 scattered, temp -12°C
PILOT: Private
TOTAL HOURS: 180 ALL TYPES 160 ON TYPE
LAST 90 DAYS: 50 ALL TYPES 35 ON TYPE
DAMAGE: Destroyed
CASUALTIES: Crew: 1 uninj; pass: 1 uninj.
OCCURRENCE: The pilot and his passenger had made flights to various airports to promote aircraft sales, and were returning to the original departure airport after dark. As a NOTAM had been issued for unserviceable runway lighting, the pilot arranged for a truck to light the strip for his landing. The pilot landed in a 25 kt tailwind on the ice-covered runway, ran off the end and overturned when the nose wheel struck a snowbank some 150 feet beyond the end.

82-Q20015

Cessna 172N

C-GFIC

DATE: 14 Feb 1982 1530 EST

OPERATION: Private recreation

PLACE: Lac-des-deux Montagnes Que 45/27N 74/05W

LOCALE: Snow and ice-covered lake

WEATHER: Wind W 5 kt vis 25+ sky clear

PILOT: Commercial

TOTAL HOURS: 384 ALL TYPES 360 ON TYPE

LAST 90 DAYS: 24 ALL TYPES 24 ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 1 uninj.

OCCURRENCE: As the pilot circled over a lake, he noticed a winter road and an aircraft parked near the shore. He decided to inspect the road to determine its suitability for a landing. Assessing it as acceptable, he made his approach and landed, but as the aircraft slowed down, the nose wheel penetrated the snow crust surface and nosed over.

82-Q20017

Cessna 177A

C-GBIS

DATE: 3 Mar 1982 0950 EST

OPERATION: Private business

PLACE: Leclercville Que 46/35N 72/00W

LOCALE: Secondary road

WEATHER: Not significant

PILOT: Private

TOTAL HOURS: 375 ALL TYPES Unknown ON TYPE

LAST 90 DAYS: Unknown ALL TYPES Unknown ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 2 uninj.

OCCURRENCE: During cruise, the windscreen became covered with oil forcing the pilot to make an emergency landing on a narrow roadway. During the landing, the right wing struck a snowbank and the aircraft swung to the right.

Company engineers reported that the crankcase vent was frozen and the pressure build-up forced the front crackshaft seal out of its cage, thus allowing the oil to be pumped out.

82-Q20019

Cessna 172

C-FZXX

DATE: 11 March 1982 1655 EST

OPERATION: Private - recreation

PLACE: Forestville, Que. 48/44N 69/06W

LOCALE: Rolling built-up area, 300' asl

WEATHER: Wind SW 10 kt, vis $\frac{3}{4}$, cloud 1800' overcast, temp 1°C

PILOT: Private

TOTAL HOURS: 850 ALL TYPES 25 ON TYPE

LAST 90 DAYS: 0 ALL TYPES 0 ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 serious

OCCURRENCE: About 40 minutes after take-off and while in cruise, the engine stopped. The pilot assessed the problem as icing and applied carb heat; the engine restarted only to stop again a few seconds later. The low altitude limited his choice of landing areas, so he selected the highway for the forced landing. On the approach, he saw and tried to avoid the hydro poles on both sides of the road, but the left wing struck one pole and the aircraft fell to the surface. The investigation revealed that the pilot had not visually confirmed his fuel load before departure, but had relied on the fuel gauges. The fuel tanks were checked at the accident site and found to be empty; engine failure was due to fuel exhaustion.

82-Q20022

de Havilland DHC-3

C-FAPQ

DATE: 25 March 1982 1430 EST

OPERATION: Charter

PLACE: Baie du Poste Que 50/26N 73/55W

LOCALE: Soft snow and slush-covered area

WEATHER: Not significant

PILOT: Commercial

TOTAL HOURS:	Unknown	ALL TYPES	Unknown	ON TYPE
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LAST 90 DAYS:	Unknown	ALL TYPES	Unknown	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj.

OCCURRENCE: Following the landing, and while taxiing in soft snow and slush, the right ski attachment bolt failed. The pilot felt the aircraft begin to sink and applied power. The drag strut then failed from excessive loads as the ski moved sideways, and the aircraft fell onto its right side.

82-Q20024

Cessna 150H

C-GAEN

DATE: 9 Apr 1982 1240 EST

OPERATION: Specialty training

PLACE: Lake Huard Que 46/01N 73/49W

LOCALE: Tree-covered mountains 700' asl

WEATHER: Wind 15 G 25 kt vis 15+ cloud 10,000 scattered temp 0°C

PILOT: Private

TOTAL HOURS:	245	ALL TYPES	220	ON TYPE
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LAST 90 DAYS:	3	ALL TYPES	3	ON TYPE
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DAMAGE: Destroyed

CASUALTIES: Crew: 1 fatal

OCCURRENCE: Approximately 25 minutes after take-off, a witness observed the aircraft in a steep turn at a low altitude; shortly after, it plunged to the ground in a wooded area. An immediate ground search was conducted without success, and an intensive air search failed to locate the aircraft. Seven days later, a local resident found the wreckage 19 nautical miles from the departure aerodrome.

Examination disclosed that the aircraft had struck the ground in a 60 degree nose-down, and slight right wing low attitude. The engine was developing power at impact, and there was no evidence of pre-impact discrepancies or malfunctions.

The aircraft did not have an ELT and was not required to have one since it was operating within a 25 n.m. radius of the aerodrome.

82-Q20025

Cessna 310-I

C-FPXW

DATE: 22 Apr 1982 1805 EST

OPERATION: Specialty training

PLACE: Dorval Arpt Que 45/28N 73/45W

LOCALE: Paved runway 7000' by 150' 117' asl

WEATHER: Wind W 10 kt vis 15 cloud 4500' broken temp 6°C

PILOT: Commercial

TOTAL HOURS:	3000	ALL TYPES	800	ON TYPE
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LAST 90 DAYS:	180	ALL TYPES	50	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 2 uninj.

OCCURRENCE: Shortly after take-off, the control tower advised the crew that the nose gear was not fully retracted. After company personnel visually confirmed that this was the case, the crew attempted several times to lower it by normal and emergency methods. Unable to free the nose gear, the flight was extended to burn off fuel. The pilot then landed, held the nose up, shut down the engines and feathered the propellers. As speed decreased, the nose dropped onto the runway.

Technical examination revealed that the link assembly for the nose gear main door had failed, and as the gear retracted, the wheel contacted the left door and forced it ahead into the wheel well. The gear jammed making it impossible to select up or down.

82-Q20026

Cessna 152

C-GZLF

DATE: 24 Apr 1982 1615 EST

OPERATION: Flying Club training

PLACE: 7 mi WNW of Valcourt Arpt Que 45/31N 72/28W

LOCALE: Flat cultivated area

WEATHER: Wind W 4 kt vis 30 cloud 5000' scattered temp 13°C

PILOT: Student

TOTAL HOURS:	62	ALL TYPES	62	ON TYPE
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LAST 90 DAYS:	5	ALL TYPES	5	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj.

OCCURRENCE: The student pilot was scheduled to practice forced landings, and had been briefed not to descend below 500 feet AGL. As he was pulling up from the fourth approach, he struck a hydro wire and damaged the aircraft. He landed straight ahead, and as the speed decreased, the nose wheel struck soft ground and the aircraft nosed over.

82-Q20028

Cessna A185F

C-GUGM

DATE: 8 May 1982 1030 EDT

OPERATION: Private recreation

PLACE: Lake Archambault Que 46/18N 74/15W

LOCALE: Lake water area

WEATHER: Wind light vis 15+ sky clear temp 7°C

PILOT: Private

TOTAL HOURS: 2000 ALL TYPES 200 ON TYPE

LAST 90 DAYS: 20 ALL TYPES 5 ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 1 uninj.

OCCURRENCE: After circling the lake twice to check his landing area, the pilot configured the aircraft for a glassy water landing. On touchdown, the right float struck an unseen block of ice causing damage to the float and struts. He immediately overshot, circled for an hour and landed safely on another lake.

There was no evidence to show that the pilot had checked the lake conditions prior to his departure.

82-Q20030

Cessna 180H

C-FQDB

DATE: 21 May 1982 1600 EDT

OPERATION: Private recreation

PLACE: Richelieu Arpt Que 45/27N 73/14W

LOCALE: Grass and asphalt runway 2800' by 75' 115' asl

WEATHER: Wind NE 5 kt vis 15+ cloud scattered

PILOT: Private

TOTAL HOURS: 550 ALL TYPES 275 ON TYPE

LAST 90 DAYS: 23 ALL TYPES 23 ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj.

OCCURRENCE: As the pilot attempted a three point landing in a light crosswind from the right, the main wheels touched the runway before he had completed the flare. The aircraft bounced and drifted to the left side of the runway, where the left wheel contacted a soft area. This drag started to pull the aircraft to the left towards a deep ditch. The pilot applied left brake and ground looped the aircraft.

82-Q20031

Cessna 180B

CF-LFJ

DATE: 21 May 1982 1040 EDT

OPERATION: Private recreation

PLACE: 62 mi NE of Three Rivers Que 47/18N 72/08W

LOCALE: Tree-bordered lake 3000' by 1000'

WEATHER: Wind NNW 23 kt vis 40 cloud 4000' broken temp 11°C

PILOT: Private

TOTAL HOURS: 230 ALL TYPES 110 ON TYPE

LAST 90 DAYS: 2 ALL TYPES 2 ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 2 uninj.

OCCURRENCE: After the aircraft touched down, the pilot had to turn to the left to avoid a rowboat. This brought the aircraft close to shore where the left wing tip struck a tree.

82-Q20032

Cessna 150M

C-GQKC

DATE: 25 May 1982 1640 EDT

OPERATION: Specialty recreation

PLACE: 1 mi W of Hunter Mills Que 45/04N 72/53W

LOCALE: Tree-bordered cultivated field

WEATHER: Wind W 5 kt vis 15+ cloud 10000 scattered temp 21°C

PILOT: Private

TOTAL HOURS:	452	ALL TYPES	220	ON TYPE
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LAST 90 DAYS:	8	ALL TYPES	8	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 1 uninj.

OCCURRENCE: While in cruise, the pilot noticed a drop in engine RPM. He applied carb heat with no positive results, so he turned the aircraft towards a road for a forced landing. Witnesses reported seeing the aircraft flying low over the road, then strike a road sign, a hydro pole, pass under wires and overfly tall trees before reaching an open field. As it touched down, the aircraft nosed over because of rough terrain.

The witnesses remarked that the engine was running rough, but an engine ground-run failed to reveal any malfunction. Weather conditions were conducive to carburettor icing, and it is likely that the accumulation of carb ice had advanced to a critical stage before the condition was noticed by the pilot.

82-Q20033

Cessna U206F

CF-EUL

DATE: 16 May 1982 1900 EDT

OPERATION: Private recreation

PLACE: Lac Brompton Que 45/27N 72/09W

LOCALE: Lake water area

WEATHER: Wind calm vis 15+ sky clear temp 21°C

PILOT: Private

TOTAL HOURS:	104	ALL TYPES	19	ON TYPE
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LAST 90 DAYS:	57	ALL TYPES	16	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 2 uninj.

OCCURRENCE: The low-time pilot was making a glassy water landing. The aircraft touched down on the right float and skipped, then struck the water in a left-wing-low attitude. The damage to the left wing and to the left horizontal stabilizer would suggest that the aircraft had stalled.

82-Q20038

Cessna 180

CF-LCX

DATE: 6 June 1982 2030 EDT

OPERATION: Commercial non-revenue

PLACE: Lac Renault, Que. 49/45N 75/55W
LOCALE: Tree-covered mountains 1066' ASL
WEATHER: Wind calm, vis 15+, sky clear, temp 20°C.
PILOT: Commercial

TOTAL HOURS:	576	ALL TYPES	36	ON TYPE
LAST 90 DAYS:	91	ALL TYPES	36	ON TYPE

DAMAGE: Destroyed

CASUALTIES: Crew: 1 fatal; pass: 1 fatal.

OCCURENCE: The pilot had been given permission to do take-off and landings in order to check aircraft and engine performance. It could also have been a familiarization flight for another pilot. For the third take-off and landing, the direction of flight was across a narrower section of the lake - a distance of about 2300 feet.

Witnesses reported that this take-off run was longer than usual - up to a point where the pilot had to get airborne to avoid a collision with the shore. After lift-off, the aircraft banked to the left, climbed steeply then disappeared behind trees. The sound of the motor stopped suddenly, and afterwards, a cloud of smoke appeared above the trees.

On scene investigation revealed that the aircraft had struck the surface in a steep nose-down, right-wing-low, attitude. The ensuing fire burnt about 80% of the wreckage.

82-Q20040

Cessna 172N

C-GYCZ

DATE: 7 Jun 1982 1115 EDT

OPERATION: Specialty training

PLACE: Stanhope Arpt Que 45/01N 71/48W

LOCALE: Tree-bordered turf runway 2000' by 60' 1450' asl

WEATHER: Wind light vis 30 cloud 8000' broken temp 16°C

PILOT: Commercial

TOTAL HOURS:	716	ALL TYPES	700	ON TYPE
LAST 90 DAYS:	97	ALL TYPES	97	ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 2 uninj.

OCCURRENCE: On a practice short field landing, the student pilot landed midway on the 2000 foot strip. The instructor took control, applied power, retracted flaps and commenced an overshoot. He was unable to climb fast enough to avoid trees past the end of the runway and the aircraft struck two tree tops, causing damage to the fuselage and wings. The instructor then landed straight ahead into a small shrub infested field. On touchdown the nose wheel dug in and the aircraft overturned.

82-Q20043

Piper PA-28 R-180

CF-HZH

DATE: 17 June 1982 1550 EDT

OPERATION: Specialty - recreation

PLACE: Lachute Que 45/38N 74/22W

LOCALE: Flat cultivated field

WEATHER: Wind calm vis 15+ sky clear temp 20°C

PILOT: Private

TOTAL HOURS:	1100	ALL TYPES	125	ON TYPE
LAST 90 DAYS:	25	ALL TYPES	1	ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj.

OCCUURENCE: The pilot-mechanic was carrying out a circuit to check a propeller problem when the engine failed. Electing to make a forced landing in a field straight ahead, he touched down hard, and went through a fence and over a ditch - damaging the airframe before finally coming to rest. Inspection indicated that the engine oil was lost because the crankcase shaft seal failed; this in turn resulted in engine seizure. Engine teardown revealed that the engine vent line had been crossed with the vacuum pump to instrument line. This would have precluded venting of the engine and allowed pressure build-up in the crankcase, leading to the blown crankcase seal and rapid oil loss.

82-Q20046

Norseman MK5

C-FFQI

DATE: 24 June 1982 2000 EDT

OPERATION: Private business

PLACE: Victoriaville Que 46/07N 71/55W

LOCALE: Paved runway 2500' by 75'

WEATHER: Not significant

PILOT: Commercial

TOTAL HOURS:	2000	ALL TYPES	200	ON TYPE
LAST 90 DAYS:	38	ALL TYPES	18	ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj.

OCCUURENCE: The pilot was on climb-out with 10 parachutists on board. As the aircraft climbed through 8500 ft, the engine started knocking and emitting smoke. The pilot shut the engine down and set up a glide for a forced landing at the departure airport. During the glide all the parachutists left the aircraft. The pilot landed about halfway down the 2500 ft hard surface runway and after rolling some distance, applied brakes sufficiently hard to cause the aircraft to go over onto its back. Subsequent inspection revealed that number 3 cylinder had cracked around the intake valve because of metal fatigue. In addition, the exhaust valve on the same cylinder had failed for undetermined reasons.

82-Q20048

de Havilland DHC-2

C-GPUO

DATE: 3 Jul 1982 1155 EDT

OPERATION: Charter

PLACE: Lac des Rapides Que 50/18N 66/25W

LOCALE: Lake water area 10560' by 7920'

WEATHER: Wind N 15 G 22 kt vis 30 cloud 3000' broken temp 15°C

PILOT: Commercial

TOTAL HOURS:	20000	ALL TYPES	5000	ON TYPE
LAST 90 DAYS:	150	ALL TYPES	50	ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 minor; pass: 3 minor

OCCURENCE: On final approach the pilot was using full flaps in the gusty conditions. As he crossed the shoreline, he commenced a sideslip to the left to descend more rapidly. When he attempted to recover at 60 feet agl, there was no response to the control inputs. The aircraft continued to descend and struck the water in a left wing low attitude.

82-Q20049

Beech A-24-R

C-GBOY

DATE: 9 Jul 1982 1435 EDT

OPERATION: Charter

PLACE: Riviere du Loup Que 47/46N 69/35W

LOCALE: Paved runway 6000' by 200' 425' asl

WEATHER: Wind N 5 kt vis 15 cloud 3000' scattered temp 18°C

PILOT: Commercial

TOTAL HOURS:	1067	ALL TYPES	4	ON TYPE
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LAST 90 DAYS:	258	ALL TYPES	4	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 1 uninj.

OCCURRENCE: While on a VFR flight, the pilot altered his track due to poor weather. The new course brought him over a small airport where he decided to land. When he selected gear down, the nose gear did not extend. After several unsuccessful attempts to lower the gear by emergency methods, he decided to proceed to another airport with a longer runway for an emergency landing. He then circled the field to burn off fuel, and when he commenced his approach, the engine stopped due to fuel exhaustion. The aircraft touched down 600 feet from the runway, and came to a stop in a nose-down attitude.

Technical examination revealed that the nose gear assembly was lost during flight due to the failure of the housing assembly within the retaining cap. Laboratory examination of the fracture surfaces revealed overload failures without any apparent precracking or evidence of progressive failure (LP 287/82). The reason for the separation could not be determined.

82-Q20050

Piper PA23-250

C-FRGH

DATE: 9 Jul 1982 2015 ADT

OPERATION: Private Business

PLACE: Mistinibi Aerodrome Que 55/50N 64/21W

LOCALE: Gravel runway 2000' long

WEATHER: Wind calm vis 15+ cloud 6000' broken temp 15°C

PILOT: Airline Transport

TOTAL HOURS:	2200	ALL TYPES	150	ON TYPE
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LAST 90 DAYS:	unknown	ALL TYPES	unknown	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj;

OCCURRENCE: After landing on the gravel and sand runway, the pilot made a 180 degree turn and commenced taxiing back. He noticed a soft spot and instead of going around it, he applied power and tried to cross it; the three wheels sank and the nose gear collapsed due to overload (LP257/82).

82-Q20051

Piel Emeraude

C-FUOE

DATE: 20 Jul 1982 1515 EDT

OPERATION: Private recreation

PLACE: Limbour Aerodrome Que 45/31N 75/44W

LOCALE: Gravel runway 2200' by 25' 350' asl

WEATHER: Wind N 10 kt vis 15 cloud scattered temp 25°C

PILOT: Private

TOTAL HOURS: 388 ALL TYPES 222 ON TYPE

LAST 90 DAYS: 17 ALL TYPES 17 ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 minor; pass: 1 minor

OCCURRENCE: Shortly after lift-off, the pilot heard a snapping noise then lost control of the ailerons. He used rudder for lateral and directional control and landed straight ahead. The aircraft touched down on the left main wheel and departed to the side of the runway; it rolled left and nosed over as it crossed over rough ground.

Inspection revealed that both turn buckles linking the aileron cables between the sticks, were not safety wired. In addition, one turnbuckle was disconnected from its threaded attachment due to rotation of the connecting linkage (LP 256/82).

82-Q20052

Grumman AA5A

C-GUXN

DATE: 16 July 1982 2115 EDT

OPERATION: Specialty - training

PLACE: St Jean Que 45/18N 73/17W

LOCALE: Paved runway 4000' by 100' 136' asl

WEATHER: Wind WNW 8 kt vis 10 cloud scattered temp 30°C

PILOT: Student

TOTAL HOURS: 13 ALL TYPES 13 ON TYPE

LAST 90 DAYS: 13 ALL TYPES 13 ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj.

OCCURRENCE: The aircraft bounced on initial touchdown during a full flap landing. Though recovery from this situation had been discussed and demonstrated by an instructor, the student applied excessive pitch correction; the aircraft porpoised, causing failure of the nose gear.

82-Q20053

Cessna 182M

C-FJYM

DATE: 23 July 1982 2105 EDT

OPERATION: Private recreation

PLACE: Ste Anne de Sorel, Que. 46/04N 72/59W

LOCALE: Compacted dirt runway 1500' by 60', 20' asl

WEATHER: Wind NW 10 kt, vis 15+, sky clear, temp 17°C

PILOT: Private

TOTAL HOURS: 750 ALL TYPES 90 ON TYPE

LAST 90 DAYS: 30 ALL TYPES 20 ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 1 uninj.

OCCURRENCE: The pilot was attempting to land after dark on an unlighted strip. As the aircraft descended he found it harder to distinguish objects and was therefore unable to locate the runway markers and landed on the grassy area 30 feet to the left of the strip. The aircraft rolled for a short distance when it struck a ditch and overturned.

82-Q20056

Cessna 152

C-GYBO

DATE: 30 July 1982 1400EDT

OPERATION: Specialty training

PLACE: Alma Airport, Que. 48/31N 71/29W

LOCALE: Asphalt and gravel runway 4300' by 150', 445' ASL

WEATHER: Wind calm, vis 15+, sky clear

PILOT: Student

TOTAL HOURS:	unknown	ALL TYPES	25	ON TYPE
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LAST 90 DAYS:	unknown	ALL TYPES	18	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj.

OCCURRENCE: When the aircraft bounced after landing with high forward speed, the student pilot used excessive elevator control in an attempt to correct the situation. The aircraft touched hard in nose-low attitude causing the propeller to strike the runway. The nosegear subsequently failed.

82-Q20059

Piper PA25-235

C-FWZY

DATE: 18 Aug 1982 2000 EDT

OPERATION: Specialty application

PLACE: St Mathias Arpt Que 45/30N 73/15W

LOCALE: Grass and gravel runway 1700' by 50' 50' asl

WEATHER: Wind W 6 G 8 kt vis 25 cloud 8500' broken temp 20°C

PILOT: Airline Transport

TOTAL HOURS:	2340	ALL TYPES	135	ON TYPE
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LAST 90 DAYS:	150	ALL TYPES	135	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj.

OCCURRENCE: The pilot reported that he took off with a small tail wind component, and when about three-quarters of the way along the strip, he realized the aircraft was not accelerating properly and elected to abort. He overran the strip, then attempted to ground loop in order to avoid a ditch. The momentum however, carried the aircraft into the ditch.

The aircraft was 200 pounds less than the all-up weight of 2900 allowed for take-off. Performance charts indicate that a 235 horsepower engine on a dry paved runway requires a ground roll of 800 feet when the temperature is 15° C. As in this case, with a gravel/grass runway, a temperature of 20 degrees and a tail wind of 6 miles per hour the required take-off run would be much longer.

82-Q20062

Piper PA-18A

C-FXOT

DATE: 26 Aug 1982 1200 EDT

OPERATION: Private recreation

PLACE: Lac Brulard Que 46/03N 77/09W

LOCALE: Lake water area

WEATHER: Wind S 10 kt vis 15+

PILOT: Private

TOTAL HOURS: 285 ALL TYPES 263 ON TYPE

LAST 90 DAYS: 20 ALL TYPES 20 ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 1 uninj.

OCCURRENCE: Following take-off, at a height of about 15 feet, the right wing dropped. As the pilot was unable to raise it, he cut the power and landed. The right wing touched the water and the aircraft waterlooped.

82-Q20063

Lake LA-4-200

C-GAOT

DATE: 29 Aug 1982 0950 ADT

OPERATION: Private recreation

PLACE: Lac Peter Que 54/52N 66/45W

LOCALE: Lake water area

WEATHER: Wind W 17 kt vis 15+ cloud 3500' overcast

PILOT: Private

TOTAL HOURS: 904 ALL TYPES 904 ON TYPE

LAST 90 DAYS: 40 ALL TYPES 40 ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj.

OCCURRENCE: Though the engine was not producing full power, the pilot attempted to take off in moderate to strong winds and fairly rough water. As the seaplane would not come up onto the step, he aborted the take-off and started a right turn. During the turn, the wind raised the left wing, causing the right float and wing tip to sink into the water. Unable to level the aircraft, the pilot shut the engine down and attempted to row ashore, however, he only drifted out further because of the wind. As the water started coming in at the bottom of the door, he radioed an FSS station who alerted a QPP rescue team; he was rescued a short time later.

The engine and left wing were protruding from the water, when the aircraft settled on the bottom of the shallow lake. Subsequent inspection revealed that the fuel filter was partially obstructed.

82-Q20064

Bell 206L-1

C-GLMV

DATE: 2 Sep 1982 1220 EDT

OPERATION: Charter

PLACE: Riviere Harricana Que 49/50N 78/35W

LOCALE: Rolling tree-bordered sandy road

WEATHER: Wind SE 8 kt vis 15 cloud 1700' broken temp 14°C

PILOT: Commercial Rotorcraft

TOTAL HOURS:	3000	ALL TYPES	2000	ON TYPE
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LAST 90 DAYS:	174	ALL TYPES	174	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 1 serious 3 uninj.

OCCURENCE: While in cruise, the aircraft lost power. The pilot selected a narrow bush road and commenced his approach, but did not autorotate. During the descent the main rotor RPM decayed resulting in a hard landing.

Technical inspection of the engine components failed to reveal any discrepancy that could have caused the power loss. Analysis of fuel samples showed high levels of miscellaneous solid contaminants, but no liquid contamination. There was insufficient evidence to prove that this contamination could have interrupted the fuel flow. (LP310/82 refers).

83-Q30002

Beech B-95

CF-MDH

DATE: 30 Jan 1983 1200 EST

OPERATION: Private recreation

PLACE: Maniwaki Arpt Que 46/16N 75/59W

LOCALE: Snow-covered gravel runway 4000' by 75' 655' asl

WEATHER: Wind light vis 10 sky clear temp -5°C

PILOT: Private

TOTAL HOURS:	122	ALL TYPES	14	ON TYPE
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LAST 90 DAYS:	3	ALL TYPES	3	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 1 uninj.

OCCURRENCE: The pilot stated that as the nose was lifted on the take-off run, the nose gear fell from the aircraft. Take-off was aborted and the aircraft came to rest on its nose.

Investigation showed that all the parts of the nose gear were in good condition, except that for some reason that couldn't be determined, the bolt holding the upper and lower scissors together was missing.

83-Q30005

Piper PA-30

C-FYST

DATE: 19 Feb 1983 1518 AST

OPERATION: Private recreation

PLACE: Gaspé Arpt Que 48/47N 64/29W

LOCALE: Paved runway 4000' by 150' 108' asl

WEATHER: Wind calm vis 15+ sky clear temp -7°C

PILOT: Private

TOTAL HOURS:	Unknown	ALL TYPES	Unknown	ON TYPE
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LAST 90 DAYS:	Unknown	ALL TYPES	Unknown	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 2 uninj.

OCCURRENCE: During a short sightseeing flight, the aircraft experienced a complete electrical failure. The pilot returned to the airport all the while fearing that the engines would quit. On the

approach, he selected gear down, but in his anxiety forgot to visually check if the gear had extended. He had also forgotten that the gear was electric, and made no attempt to use the emergency procedure.

A qualified mechanic who examined the aircraft, was unable to find any problem with the electrical system.

83-Q30007

Champion 7ECA

C-GDDG

DATE: 5 Mar 1983 1417 EST

OPERATION: Private recreation

PLACE: Quebec Arpt Que 46/48N 71/24W

LOCALE: Paved runway 9000' by 150' 243' asl

WEATHER: Not significant

PILOT: Private

TOTAL HOURS:	150	ALL TYPES	0	ON TYPE
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LAST 90 DAYS:	0	ALL TYPES	0	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 1 uninj.

OCCURRENCE: As the tailwheel lifted, the pilot lost directional control; the aircraft swung to the right, struck the snowbank bordering the runway and overturned. He had just purchased the aircraft and was given a short training flight by the previous owner. He had no previous experience on tailwheel equipped aircraft.

Prior to the departure, both he and the previous owner knew that the right brake was unserviceable, still the flight was undertaken. The pilot reported that the brake cable had failed, and the right brake had seized causing the aircraft to swing on take-off.

83-Q30009

Cessna A185F

C-GAYC

DATE: 6 Mar 1983 0730 AST

OPERATION: Private recreation

PLACE: Lac Bedard Que 50/56N 67/59W

LOCALE: Snow-covered frozen lake

WEATHER: Wind NW 26 kt vis 15+ sky clear temp 0°C

PILOT: Private

TOTAL HOURS:	1000	ALL TYPES	Unknown	ON TYPE
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LAST 90 DAYS:	25	ALL TYPES	Unknown	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 1 uninj.

OCCURRENCE: The pilot was taxiing towards his take-off point in a strong crosswind gusting from the left. As he was preparing to turn, the right ski sank in the deep snow and slush surface. The aircraft swung to the right and a gust of wind flipped it over.

83-Q30010

Convair 580

C-GFHD

DATE: 8 Mar 1983 1304 EST

OPERATION: Charter

PLACE: La Grande LG-4 Que 53/45N 73/40W

LOCALE: Snow-covered gravel runway 5000' by 150' 1006' ASL

WEATHER: Wind SSW 10 kt vis 10 cloud 1500 Broken 0°C

PILOT: Airline transport

TOTAL HOURS:	11820	ALL TYPES	3572	ON TYPE
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LAST 90 DAYS:	188	ALL TYPES	188	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 4 uninj; pass: 14 uninj.

OCCURRENCE: The destination airport reported light freezing drizzle with a left cross-wind of 10 knots; also the pilot was advised that the runway had been sanded and braking action was poor to fair. However, the sanding operation had been carried out much earlier, leaving the runway covered with freezing drizzle. Landing on the icy runway, the pilot felt the aircraft start to drift to the right, so he attempted to arrest this movement with assymetric thrust; the aircraft struck a snowbank tearing off the right main gear. It came to rest on the right wing and left main gear some 210 feet beyond the snowbank.

83-Q30015

de Havilland DHC-2

C-FGCX

DATE: 26 Mar 1983 0825 AST

OPERATION: Charter

PLACE: Mingan Arpt Que 50/17N 64/09W

LOCALE: Paved runway 5000' by 150' 71' asl

WEATHER: Wind NNE 11 kt vis 15+ sky clear

PILOT: Commercial

TOTAL HOURS:	3600	ALL TYPES	2700	ON TYPE
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LAST 90 DAYS:	225	ALL TYPES	200	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 2 uninj.

OCCURRENCE: On the take-off roll, the pilot used right rudder and brake to counteract the 90 degree cross-wind from the left. As the tail came up at an estimated speed of 40 mph, the aircraft swung 45 degrees to the left. Unable to bring the aircraft back onto the runway heading, he selected flap to the "take-off" position and attempted to clear the hard packed snowbank to the side of the runway by pulling back sharply on the control column. The right main wheel and ski struck the snowbank and were torn off; the aircraft came to rest on its belly and right wing tip.

83-Q30021

Piper PA20-1A4

C-GUDJ

DATE: 1 May 1983 1430 EDT

OPERATION: Private recreation

PLACE: Notre-Dame du Laus Arpt Que 46/07N 75/38W

LOCALE: Dirt runway 1500' by 60' 1300' ASL

WEATHER: Wind NW 10kt vis 15+ cloud 4000' scattered temp 15°C

PILOT: Private

TOTAL HOURS:	200	ALL TYPES	40	ON TYPE
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LAST 90 DAYS:	24	ALL TYPES	24	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 1 uninj.

OCCURRENCE: During the landing roll, the pilot was distracted by someone standing on the side of the runway. It is not known what caused the aircraft to nose-over, but the pilot may have applied excessive brake.

83-Q30023

SE5A REPLICA

C-GXKI

DATE: 5 May 1983 0610 EDT

OPERATION: Private recreation

PLACE: St Jean Arpt Que 45/18N 73/17W

LOCALE: Flat swampy area on airport 120' ASL

WEATHER: Wind S 4kt vis 15 cloud 1300 scattered temp 5°C

PILOT: Private licence

TOTAL HOURS:	160	ALL TYPES	45	ON TYPE
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LAST 90 DAYS:	unknown	ALL TYPES	unknown	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj.

OCCURRENCE: After take-off, at a height of 150 feet, the engine lost power. The pilot tried to land on another runway but could not complete the turn. He landed on the infield and as the aircraft slowed down on the soft wet ground, it nosed over. The pilot stated that the engine did not develop the required RPM prior to and during the take-off.

Engine inspection revealed that the number 3 cylinder had only 50 lbs compression. This is considered to have caused the low RPM, but carburettor icing likely initiated the power loss as the relative humidity was 80 percent.

83-Q30027

Hughes 269B

C-FSYN

DATE: 29 May 1983 1315 EDT

OPERATION: Commercial non-revenue

PLACE: St Hubert Que 45/32N 73/25W

LOCALE: Flat grass-covered area

WEATHER: Wind ESE 8kt vis 15 cloud 9000' broken temp 16°C

PILOT: Commercial Rotorcraft licence

TOTAL HOURS:	4380	ALL TYPES	1000	ON TYPE
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LAST 90 DAYS:	100	ALL TYPES	100	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 1 uninj.

OCCURRENCE: Returning from a 20 minute local flight, the pilot demonstrated an autorotation to his passenger. He misjudged his rate of descent and flared too low. Before he could react and apply power, the stinger contacted the ground and broke off; the aircraft touched down hard, bounced and came to rest 150 feet away.

83-Q30031

Schweizer SGS-2-33A

C-FACQ

DATE: 4 Jun 1983 1115 EDT

OPERATION: Private training

PLACE: La Macaza Arpt Que 46/25N 74/47W

LOCALE: Flat paved road near airport

WEATHER: Wind S 5 kt vis 15+ sky clear

PILOT: Glider licence

TOTAL HOURS:	17	ALL TYPES	17	ON TYPE
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LAST 90 DAYS:	2	ALL TYPES	2	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj.

OCCURRENCE: During the winch launch, and at a height not greater than 200 feet, the tow cable broke. The pilot turned to the right placing the aircraft to the right side of the runway, and as she turned back, found herself in danger of striking a fence. She chose to land on a road parallel to the aerodrome. After touchdown, the right wing struck a road sign and the aircraft swung abruptly into a ditch.

83-Q30035

Cessna U206F

C-GFZT

DATE: 13 Jun 1983 1446 EDT

OPERATION: Private recreation

PLACE: Bryson Que 45/40N 76/39W

LOCALE: River water area

WEATHER: Wind light vis 9 sky clear temp 30°C

PILOT: Private

TOTAL HOURS:	700	ALL TYPES	400	ON TYPE
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LAST 90 DAYS:	10	ALL TYPES	10	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 minor; pass: 1 fatal 1 uninj.

OCCURRENCE: On returning following a short local flight, the pilot made a low pass to visually check the selected landing area. After touchdown, the right float struck an object and the aircraft overturned.

Over the years, the river has been used in logging operations; consequently, the water is murky and many logs are saturated and float just below the water surface. The damage pattern to the right float suggest that it struck one of these partially submerged logs.

82-W20025

Douglas DC3

C-FQHF

DATE: 7 May 1982 1307 MDT

OPERATION: Charter

PLACE: Calgary Int'l Aprt Alt 51/07N 114/01W

LOCALE: Slush-covered runway 12,700' by 200' 3543' ASL

WEATHER: Wind E 8kt vis $\frac{1}{2}$ snow/cloud 400' obscured temp -2°C

PILOT: Airline Transport

TOTAL HOURS:	25000	ALL TYPES	10000	ON TYPE
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LAST 90 DAYS:	100	ALL TYPES	10	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 2 uninj; pass: 3 uninj

OCCURRENCE: The captain had planned to depart at 1000 hours but poor weather delayed the flight. Three hours later, conditions had improved to 400 foot ceiling obscured with an RVR of 1800 feet in snow, the freezing rain had stopped and the forecast was for continued improvement.

Snow and ice had accumulated but the aircraft was cleared off. After hearing the weather report, the captain decided to start the flight even though conditions had not yet reached IFR take-off minima.

On the run up, the engines were reported as satisfactory. The tower asked the crew if they were able to take off from uniform taxiway intersection (leaving 6500 feet of runway remaining). This being accepted, they were then cleared for takeoff on runway 16.

The captain, who was flying from the left seat, reported that they achieved the planned V1 speed of 70 kts. He felt, however, that the aircraft was not accelerating properly to lift-off speed of 80/85 kts so he elected to abort; the braking action ranged from nil to very poor and the aircraft overran the runway and hit a drainage ditch.

There were several possible factors that influenced the decision to abort - it was over 13 minutes from the time of last snow removal from the aircraft and more would have accumulated, the aircraft was just under gross allowable take-off weight, there was one-half inch of slush on the runway and although the crosswind was light, it was 80 degrees off the runway. A final important factor was since the RVR was 1800 feet, the end of the runway would not be visible; unless the take-off was timed, there would be no way for the crew to know the distance remaining.

82-W20029

Cessna 150J

C-GH DU

DATE: 24 May 1982 1930 MDT

OPERATION: Private recreation

PLACE: Slave Lake Alt 55/17N 114/44W

LOCALE: Rolling swampy area 1950' ASL

WEATHER: Wind NW 11G18 kt vis 15+ cloud temp 15°C

PILOT: Private

TOTAL HOURS:	340	ALL TYPES	200	ON TYPE
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LAST 90 DAYS:	15	ALL TYPES	15	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 minor; pass: 1 minor 1 uninj.

OCCURRENCE: The pilot was on a 227 nautical mile flight in an aircraft with a "no reserve" fuel duration of 4 hours 6 minutes. The flight time required to reach destination under the prevailing headwinds equated to 3 hours 55 minutes.

When 72 miles from destination, after overflying two refuelling facilities, the pilot became concerned about his fuel state. Rather than continue direct, he altered his route to follow a

highway where he could land should he experience difficulties. This detour added 13 miles to his enroute distance. It also allowed him to overfly a third enroute refuelling facility. The pilot was also unaware the fuel system contained 3.5 gallons of unusable fuel.

Four hours into the flight and with destination runway in sight, the engine stopped from fuel exhaustion. The pilot made a forced landing in a sewage lagoon, striking an embankment 800 feet short of the runway.

82-W20030

Cessna 185

C-GPBN

DATE: 25 May 1982 1845 MDT

OPERATION: Private business

PLACE: Saint Albert Arpt Alt 53/41N 113/42W

LOCALE: Gravel runway 3200' by 75' 2265' asl

WEATHER: Wind WNW 10 kt vis 15+ cloud 6000' broken temp 14°C

PILOT: Private

TOTAL HOURS:	4500	ALL TYPES	4000	ON TYPE
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LAST 90 DAYS:	20	ALL TYPES	20	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 1 uninj.

OCCURRENCE: The pilot was flying the aircraft from the right seat after the pilot in the left seat had completed several circuits. Following touchdown, the pilot was counteracting a left crosswind with left rudder and brake. Suddenly the left rudder pedal collapsed to the floor. The pilot was unable to control the swing into wind and the aircraft groundlooped, collapsing the left main gear.

The dual rudder locking pin for the left rudder pedal of the right seat occupant, had slipped out of position, allowing the pedal to collapse to the floor. The locking pins and attachments are located in a relatively inaccessible area beneath the cockpit floor and are not on a regular inspection schedule.

82-W20033

Piper PA28-151

C-GPZU

DATE: 29 May 1982 1445 MDT

OPERATION: Flying Club recreation

PLACE: Gull Lake Alt 52/30N 113/56W

LOCALE: Flat tree-covered area 2200' asl

WEATHER: Wind calm vis 15+ sky clear

PILOT: Private

TOTAL HOURS:	140	ALL TYPES	40	ON TYPE
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LAST 90 DAYS:	40	ALL TYPES	40	ON TYPE
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DAMAGE: Destroyed

CASUALTIES: Crew: 1 serious

OCCURRENCE: The pilot was on a cross-country flight which passed close to a friend's cottage situated on a lakeshore. After circling overhead, he descended over the lake in preparation for a low level pass over the cottage. As he approached the shore line,

which rose steeply to the cottage, he misjudged his height and struck trees projecting above the cottage. With one wing badly damaged, the aircraft rolled inverted and crashed into a swampy, wooded area behind the cottage.

82-W20047

Douglas B26

C-GWJG

DATE: 1 Jul 1982 1230 YST

OPERATION: Specialty control

PLACE: 10 mi NW of Watson Lake YT 60/15N 129/04W

LOCALE: Tree-covered hills 2500' asl

WEATHER: Wind S 5 kt vis 5 sky clear

PILOT: Airline Transport

TOTAL HOURS:	5500	ALL TYPES	320	ON TYPE
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LAST 90 DAYS:	55	ALL TYPES	55	ON TYPE
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DAMAGE: Destroyed

CASUALTIES: Crew: 1 fatal

OCCURRENCE: The tanker, fully loaded with fire retardant, was being led in on a low level fire suppression bombing run by a small spotter aircraft. The spotter pilot overshot the turn onto the final lead-in line and asked the tanker pilot if he could tighten up his turn. Following the run over the fire, the spotter pilot pulled up to observe the tanker's retardant drop. The tanker failed to appear. It had crashed near the turn on point to the lead-in line.

Investigation revealed the load carried by the tanker placed the centre of gravity at the aft limit.

In all probability, the pilot tightened up his turn onto the lead-in line as requested, causing the aircraft's tail heavy status to assume command. The pilot lost control and did not have sufficient power or altitude to recover.

82-W20056

Cessna 152

C-GRTC

DATE: 17 July 1982 1530 MDT

OPERATION: Specialty training

PLACE: Gordon Lake Forestry Strip Alt 56/37N 110/30W

LOCALE: Tree-bordered grass-covered strip

WEATHER: Wind NNE 13 kt vis 8 sky hazy temp 24°C

PILOT: Private

TOTAL HOURS:	95	ALL TYPES	75	ON TYPE
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LAST 90 DAYS:	30	ALL TYPES	15	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 1 uninj.

OCCURRENCE: The pilot stated that during a touch-and-go landing, the aircraft left the strip then nosed over at the edge. The runway was soft and a cross-wind was blowing.

82-W20061

Bell 206L

C-GTEJ

DATE: 29 Jul 1982 2000 MDT

OPERATION: Charter

PLACE: 2 mi W of Livingstone Alt 50/02N 114/30W

LOCALE: Rocky mountainous area 6800' asl

WEATHER: Wind S 4 kt vis 15+ sky clear temp 23°C

PILOT: Commercial

TOTAL HOURS:	3600	ALL TYPES	Unknown	ON TYPE
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LAST 90 DAYS:	Unknown	ALL TYPES	Unknown	ON TYPE
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DAMAGE: Destroyed

CASUALTIES: Crew: 1 serious; pass: 1 serious, 5 minor

OCCURRENCE: The pilot lifted into a hover off the helipad, turned away from the mountain slope and started to move forward. At this point, a loud bang was heard, accompanied by an immediate loss of rotor RPM. Allowing the helicopter to swing left, he carried out a forced landing in a stand of pine trees in order to prevent the machine from descending down the mountain. After impact, the helicopter rolled onto its right side and the pilot and passengers escaped before the helicopter was consumed by a raging fire. Crashworthy fuel tanks and lines were not installed.

Examination of the engine revealed cracks around the compressor mount attachment pads due to high cycle, low stress fatigue. Complete separation from the mount occurred to two of the three upper attachment holes, allowing the compressor mount, with impeller attached, to cant forward resulting in a total power loss.

Cracking at the compressor mount bolt holes is a well-known problem, and inspection procedures had been instituted by the engine manufacturer. These criteria (together with the extent of the fatigue cracking observed in the two upper holes) indicate the compressor mount assembly should have been declared unserviceable at the time of the last 300 hour inspection - 18.4 hours previous to the accident. Maintenance personnel, although aware of the Service Bulletin, had misinterpreted it and allowed the assembly to remain in service.

82-W20069

Bell 204B

C-GAHN

DATE: 14 Aug 1982 1020 MDT

OPERATION: Charter

PLACE: Blairmore Alt 49/34N 114/30W

LOCALE: Tree-covered mountains 6300' asl

WEATHER: Wind SW 13 kt vis 15+ sky clear temp 16°C

PILOT: Commercial Rotorcraft

TOTAL HOURS:	3200	ALL TYPES	550	ON TYPE
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LAST 90 DAYS:	220	ALL TYPES	40	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 serious

OCCURRENCE: The pilot was positioning seismic drills along a narrow cut line using a long line. Descending vertically to pick up a drill, he raised the collective to reduce his rate of descent. However, the engine failed to respond and the rotor RPM rapidly decayed as the blade pitch increased. Unable to autorotate to the valley

below, the pilot allowed the helicopter to settle tail first into tall trees on the mountain side. During the impact, he received a severe cut to the back of his head and was momentarily dazed. Normally he wore a helmet; but because his mike had failed, he had donned a standard head-set.

Examination of the fuel control unit (FCU) found the servo valve, which directs fuel pressure to operate the inlet guide vane actuator, to be contaminated with an unidentified foreign material. The return spring could not overcome the added resistance and the vanes remained closed, resulting in the lack of engine response. Further inspection found the P1 multiplier idler gear seized on the bushing and also the shaft, which is a wire locked bolt through the casting body. These seizures caused the bolt to rotate, break the lock wire and wear the bolt and casting. Although not normal, the FCU would continue to function provided the lock nut did not back off excessively. It is believed that the unit functioned in this manner for some time. The resultant abnormal wear is the likely source of the contamination.
(LP 296/82, LP 402/82)

82-W20070

Cessna 172

C-GMZI

DATE: 20 Aug 1982 2200 MDT

OPERATION: Private recreation

PLACE: Godlin Lakes NWT 63/47N 128/45W

LOCALE: Mountainous area 2500' ASL

WEATHER: Wind N 10 kt vis 2 cloud 2000' overcast temp 8°C

PILOT: Private

TOTAL HOURS:	120	ALL TYPES	85	ON TYPE
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LAST 90 DAYS:	32	ALL TYPES	32	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 1 uninj.

OCCURRENCE: The pilot took off about 15 minutes before sunset, returning one hour later; he approached the mountain valley airstrip while darkness rapidly descended. The visibility was reduced in light rain and overcast conditions. He touched down about 300 feet from the threshold, and during the landing roll, he experienced a cross-wind from the right and could not correct the drift to the left. The nose wheel collapsed in a drainage ditch adjacent to the runway and the aircraft nosed over.

The mountains, together with the rain and overcast conditions, greatly reduced the light available. The airstrip is 2000 feet long and only 30 feet wide; it was wet, soft and rocky. A road across the strip 675 feet from the threshold caused a rough break. In addition, there are drainage ditches on either side and adjacent to the runway.

The pilot had no night or mountain flying training. He could not cope with the runway, cross-wind and poor light conditions.

DATE: 29 August 1982 1947MDT

OPERATION: Private recreation

PLACE: Midnapore, Alt. 50/54N 114/10W

LOCALE: Rolling grass-covered area 3500' ASL

WEATHER: Wind SSE 10 kt, vis 25+, sky clear, temp 17°C

PILOT: Private

TOTAL HOURS: 2700 ALL TYPES 1000 ON TYPE

LAST 90 DAYS: 30 ALL TYPES 30 ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; Pass: 1 uninj.

OCCURRENCE: During normal cruise, the pilot heard a thump, followed by a loss of oil pressure from gearing failure in the oil pump. The oil-starved engine began to vibrate and lose power until it finally seized. The pilot forced-landed, wheels-up in a canola field.

An Airworthiness Directive had been previously issued to replace the defective oil pump impellers. Mandatory completion of the directive was due within 12.1 hours of operation. (LP 302/82)

82-W20073

Champion 7EC

C-FTKD

DATE: 2 September 1982 0947 MDT

OPERATION: Private - business

PLACE: 1 mi E of Fort McMurray, Alt. 56/44N 111/20W

LOCALE: Tree-covered hills 1100' asl

WEATHER: Wind calm, vis 15, cloud 8000 broken, temp 12°C

PILOT: Private

TOTAL HOURS: 500 ALL TYPES 20 ON TYPE

LAST 90 DAYS: 25 ALL TYPES 20 ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 serious

OCCURRENCE: Take-off and climb-out appeared normal to the pilot, as well as witnesses on the ground. After reaching 400-500 feet, the aircraft rapidly lost height following initiation of a turn; it then dove into some trees. The pilot felt he had experienced a partial power loss; however, the engine was found to be serviceable.

Although atmospheric conditions were conducive to severe carb icing, the pilot reported he normally used carb heat prior to each take-off. The fact that he did not monitor engine RPM or airspeed during departure, raised the possibility that the airspeed was unintentionally lost, leading to a stall.

82-W20074

Bell 206L-1

C-GFHO

DATE: 2 Sep 1982 1050 PDT

OPERATION: Charter

PLACE: Selwyn Mountains NWT 61/35N 127/40W
LOCALE: Rocky mountainous area 6200' ASL
WEATHER: Wind W 5 G 7 kt vis 10 cloud 15000' broken temp 2°C

PILOT: Commercial

TOTAL HOURS: 3900 ALL TYPES 135 ON TYPE

LAST 90 DAYS: 400 ALL TYPES 90 ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj.

OCCURRENCE: The pilot landed into a light wind on a razor-back ridge which dropped sharply down several thousand feet to a valley. The main rotor disc extended over the face of the summit. As the stopover was short, the pilot did not shut down the engines, but throttled back to flight idle.

Suddenly a strong gust of wind came up the ridge and the aircraft lurched into the air. The machine came to rest upright thirty feet away, after the main rotor blades had hit the ground, severed the tip of the right skid, and shattered the right bubble windshield.

Contrary to recommended procedure, the pilot had left the cockpit and was balanced with one foot on the skid and the other foot against the cyclic. Although he had locked the collective and cyclic frictions when he left his seat, he did not retain full control of the cyclic. The vertical blast of air was sufficient to cause the rotor to strike the low pitch stops. The force of the repeated strikes against the stops threw the aircraft into the air.

82-W20075

Bell 206B

C-FAHT

DATE: 3 September 1982 1600 MDT

OPERATION: Charter

PLACE: 20 mi NNE of Grande Cache Alt 54/13N 118/53W

LOCALE: Tree-covered hills 4000' asl

WEATHER: Wind NE 10 kt vis 25 sky clear temp 20°C

PILOT: Commercial Rotorcraft

TOTAL HOURS: 1600 ALL TYPES 500 ON TYPE

LAST 90 DAYS: 270 ALL TYPES 270 ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 2 uninj.

OCCURRENCE: While on a forestry patrol, the pilot experienced an engine malfunction and immediately turned back to his departure point. Realizing that he would not make it, he carried out an autorotation into a clearing in the trees. On touchdown, the sloping terrain caused the helicopter to rock forward, and the main rotor blade severed the tail boom.

While the engine did not fail completely, it would not produce sufficient power to maintain flight. The reason for the engine malfunction was established as a third stage stator vane failure, possibly as a result of a stator material failure, or an erosion problem leading to vane failure. The plastic compressor case liner was not eroded sufficiently to prove that erosion alone was the problem.

DATE: 4 Sep 1982 1320 PDT
OPERATION: Specialty inspection
PLACE: Vulcan Lake NWT 62/21N 128/13W
LOCALE: Rocky mountainous area 2300' asl
WEATHER: Wind E 8 kt cloud 9000' broken temp 12°C
PILOT: Commercial

TOTAL HOURS:	7800	ALL TYPES	1600	ON TYPE
LAST 90 DAYS:	250	ALL TYPES	245	ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 2 uninj.

OCCURRENCE: During maintenance, the Py (pressure sensing) accumulator on the power turbine governor was attached finger tight by the aircraft maintenance engineer (AME). The loose accumulator went unnoticed during inspection by both the AME and the pilot. Shortly after take-off, at approximately 400 feet AGL, the connection vibrated loose and, initially, engine RPM was lost.

During the autorotation, the accumulator continued to vibrate and the pilot reported the RPM fluctuated wildly, making aircraft control difficult. The landing would have been successful except that, after touching down, the main rotor chopped off the tail boom. Had the pilot retarded the throttle during the autorotation, he would not have encountered the fluctuations.

82-W20078

Cessna A185F

C-GJGZ

DATE: 6 September 1982 1625 MDT
OPERATION: Private - business
PLACE: Oyen, Alt. 51/25N 110/27W
LOCALE: Rolling grass-covered field
WEATHER: Wind SE 5 kt, vis 40+, sky clear, temp 15°C
PILOT: Commercial

TOTAL HOURS:	580	ALL TYPES	530	ON TYPE
LAST 90 DAYS:	30	ALL TYPES	30	ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj.

OCCURRENCE: The aircraft nosed over in a stubble field after a short roll of 111 feet. The pilot stated he had done a three point landing, but did not hold back on the controls to keep the tail down while braking heavily.

82-W20079

Fleet 80

C-FEOH

DATE: 8 September 1982 1540 MDT
OPERATION: Flying Club training
PLACE: Smoky Lake, Alt. 54/06N 112/28W
LOCALE: Rolling grass-covered area 2000' asl
WEATHER: Wind calm, vis 15+, sky clear
PILOT: Student

TOTAL HOURS:	46	ALL TYPES	46	ON TYPE
LAST 90 DAYS:	40	ALL TYPES	40	ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj.

OCCURRENCE: A student pilot took off on his second solo prairie cross-country flight, using the aeronautical chart from his first flight. The routing of his first check-point was the same as his previous trip. After passing the check-point, he set out on a heading almost 180 degrees to the desired track, one that closely corresponded to the second leg he had drawn for his first navigational flight.

He did not realize his error, and continued confused and lost until his fuel supply was nearly exhausted. The left main gear was torn off during a precautionary landing in a field. High grass in the field he had chosen, obscured plough furrows.

82-W20080

Cessna 172M

C-GXZB

DATE: 10 Sep 1982 2200 MDT

OPERATION: Specialty recreation

PLACE: 60 mi SE of High Level Alt 57/48N 116/02W

LOCALE: Tree-covered hills 2800' asl

WEATHER: Wind NW 5 kt sky obscured with fog

PILOT: Commercial

TOTAL HOURS:	250	ALL TYPES	25	ON TYPE
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LAST 90 DAYS:	Unknown	ALL TYPES	Unknown	ON TYPE
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DAMAGE: Destroyed

CASUALTIES: Crew: 1 fatal; pass: 1 fatal, 1 serious

OCCURRENCE: A low time pilot and two passengers were on a night VFR flight from Yellowknife to Lac la Biche. During a stopover in High Level, the pilot received a weather briefing indicating low ceilings, fog, and snow pellets ahead; he departed after briefing his passengers that they might turn back if the conditions were poor.

About thirty minutes after departure, the forecast weather was encountered. For a short time, the pilot flew in what the surviving passenger described as freezing rain. While turning back, the aircraft entered low clouds over the Buffalo Head Hills and crashed in the trees.

The on-board ELT functioned automatically, and the crash location was pinpointed within eight hours.

82-W20081

Cessna U206

C-GSQX

DATE: 17 Sep 1982 1730 MDT

OPERATION: Charter

PLACE: Gordon Lake NWT 62/54N 113/18W

LOCALE: Lake water area

WEATHER: Wind WNW 15 kt vis 15+ sky clear

PILOT: Commercial

TOTAL HOURS:	4000	ALL TYPES	1000	ON TYPE
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LAST 90 DAYS:	250	ALL TYPES	100	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 1 uninj.

OCCURRENCE: While taxiing out for take-off the aircraft's float struck a rock and was punctured. The pilot inspected the damage, pumped out the float, and attempted take-off. Unable to get airborne, he returned to the dock, off-loaded two passengers, and pumped out the float. On the second take-off attempt, the aircraft would not climb up on the step, and when the pilot throttled back it overturned.

82-W20082

Cessna A185F

C-GZBO

DATE: 22 Sep 1982 1100 MDT

OPERATION: Specialty inspection

PLACE: 8 mi E of Hotchkiss Alt 57/06N 117/17W

LOCALE: Flat tree-covered area 1600' asl

WEATHER: Wind NW 8 kt vis 25 cloud scattered temp 7°C

PILOT: Senior Commercial

TOTAL HOURS:	5900	ALL TYPES	Unknown	ON TYPE
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LAST 90 DAYS:	263	ALL TYPES	122	ON TYPE
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DAMAGE: Destroyed

CASUALTIES: Crew: 1 fatal; pass: 1 fatal

OCCURRENCE: The pilot was on a power line inspection with an observer in the right hand seat. The procedure was to fly on the left hand side of the lines so that the observer would have a good view for inspection purposes. The flight departed from Peace River, and about 2 hours later landed at a pumping station where a status report was filed by phone.

During the next flight, witnesses reported that they saw the aircraft circling the power line at low level and then disappear below the tree tops; smoke was observed in the area a short time later. These observances were not reported until several hours later, by which time the aircraft had been reported overdue, and a search had located the crash site.

Evidence revealed the aircraft had entered the trees in a steep bank with a marked nose-down attitude. This would indicate that during one of the turns the aircraft had stalled at too low an altitude for a safe recovery.

It is possible that the pilot may have circled in the area to have a closer view or further look at the power lines, but although an extensive investigation was carried out, the cause of the crash could not be determined.

82-W20083

de Havilland DH82C

C-GXGS

DATE: 11 Oct 1982 1335 MDT

OPERATION: Private recreation

PLACE: Acme Alt 51/27N 113/31W

LOCALE: Flat compact area

WEATHER: Wind NW 20 G 25 kt vis 15+ sky broken

PILOT: Commercial
TOTAL HOURS: 284 ALL TYPES 20 ON TYPE
LAST 90 DAYS: 36 ALL TYPES 20 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 serious; pass: 1 serious
OCCURRENCE: The pilot was returning to land at his farm strip in what was reported as gusty conditions.

After bouncing on touchdown, a wing dropped, the pilot lost control, and the aircraft cartwheeled off to the right side of the runway.

82-W20084

Piper PA-22

C-GRXG

DATE: 10 Oct 1982 1545 MDT
OPERATION: Private recreation
PLACE: 2 miles E of Entrance Alt 53/24N 117/41W
LOCALE: Flat tree-bordered field 3500' ASL
WEATHER: Wind SSW 20 kt vis 15+ sky clear
PILOT: Commercial
TOTAL HOURS: 300 ALL TYPES 30 ON TYPE
LAST 90 DAYS: 40 ALL TYPES 30 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj; pass: 2 uninj.
OCCURRENCE: About 30 minutes after take-off, the pilot experienced fuel problems followed by a power loss. Although heat and rapid throttle movement were applied and fuel tanks reselected, power only came on intermittently.

The pilot passed over several acceptable landing areas in an attempt to reach a nearby airstrip. However, since the aircraft was losing altitude and power, she finally decided to make a forced landing. This was carried out downwind in a pasture field; the aircraft overran the clearing and ran into some trees.

The owner misinformed the pilot on the operation of the fuel system. Most of the trip had been flown with the right tank selected, as fuel cross-feed from both tanks was expected; however, fuel was being used from the left tank only.

Investigation revealed there was adequate fuel in the right tank. The owner, had not properly modified the fuel system or had it checked out before allowing the pilot to fly the aircraft. In addition, the fuel valve selector was improperly lettered, and the fuel valve was able to move freely to any selection due to lack of a proper detent pin.

82-W20085

Cessna 180

C-FLRP

DATE: 23 Oct 1982 1630 MDT
OPERATION: Private recreation

PLACE: Barrhead Arpt Alt 54/06N 114/25W

LOCALE: Paved runway 3500' by 100' 2120' asl

WEATHER: Wind calm vis 15+ sky clear

PILOT: Commercial

TOTAL HOURS:	440	ALL TYPES	160	ON TYPE
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LAST 90 DAYS:	174	ALL TYPES	150	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 4 uninj.

OCCURRENCE: While taking off with a load of parachutists, the pilot heard a loud bang. Unable to maintain directional control, he veered to the left then groundlooped. The occupants escaped uninjured.

Examination of the aircraft determined that an entire propeller blade had fractured at the shank and separated. The resulting imbalance had caused massive damage to the engine. The investigation determined that the blade shank had failed due to a fatigue crack in the thread root. This resulted from improper machining which hadn't been detected by quality control.
LP 367/82.

82-W20086

Cessna 170B

C-GLGV

DATE: 31 October 1982, 1440 MST

OPERATION: Private - recreation

PLACE: Cooking Lake Arpt, Alt. 53/26N 113/07W

LOCALE: Grass runway 2500' by 150' 2430' asl

WEATHER: Wind SSW 5 kt, vis 15+, sky overcast, temp 7°C

PILOT: Private

TOTAL HOURS:	400	ALL TYPES	35	ON TYPE
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LAST 90 DAYS:	35	ALL TYPES	35	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 serious

OCCURRENCE: On climb-out, the pilot experienced an engine failure at low altitude. Apprehensive about ditching in the lake at the end of the runway, he attempted to turn back to the airstrip. The aircraft stalled in the turn and spun into a wooded area. It was determined that the engine had failed due to fuel starvation. Contrary to recommended procedures, the pilot had taken off with the fuel selected to a tank indicating in the "no take-off" zone. Also, the aircraft was not equipped with a stall warning device.

82-W20087

Piper PA-31

C-GMOK

DATE: 4 Nov 1982 1410 PST

OPERATION: Private business

PLACE: Pine Point NWT 60/15N 114/22W

LOCALE: Flat snow and ice-covered area

WEATHER: Wind SSE 25 kt vis 15+ sky broken temp -2°C

PILOT: Senior Commercial

TOTAL HOURS:	9000	ALL TYPES	368	ON TYPE
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LAST 90 DAYS:	110	ALL TYPES	110	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 4 uninj.

OCCURRENCE: The pilot reported he had undertaken a landing on the partially snow-covered runway in crosswind conditions. He overflowed the aerodrome and noted what appeared to be signs of a recently arrived aircraft. The runway proved to be icy and he apparently was unable to directionally control the aircraft. The right main gear collapsed after the aircraft left the runway.

82-W20088

Piper PA28-161

C-GJQW

DATE: 17 Nov 1982 0630 MST

OPERATION: Private recreation

PLACE: 3 mi N of Vermilion Alt 52/24N 110/50W

LOCALE: Tree-covered hills 2260' asl

WEATHER: Wind E 4 kt vis 15 cloud 600' overcast temp -6°C

PILOT: Private

TOTAL HOURS:	325	ALL TYPES	60	ON TYPE
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LAST 90 DAYS:	40	ALL TYPES	40	ON TYPE
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DAMAGE: Destroyed

CASUALTIES: Crew: 1 uninj.

OCCURRENCE: The pilot arrived at the airport intending to depart on a VFR cross-country flight. He called a Flight Service Station and was advised that the enroute weather would be marginal VFR with low ceilings, and the possibility of fog and freezing drizzle. He cancelled the trip, but decided to practice night circuits as the local weather appeared suitable.

During climb-out, the pilot noticed that the aircraft was "sluggish". It reached approximately 500 ft. AGL, then entered a descent that could not be checked. The pilot was unable to distinguish terrain features ahead; the aircraft flew itself between two trees of a poplar windbreak, tearing off the wings but allowing the pilot to escape injury.

The pilot said he had observed, during his pre-flight inspection, "a little bit" of ice on the wings. He had not removed it, and ice was still visible on the airframe when investigators arrived.

82-W20089

Champion 7EC

C-GGES

DATE: 5 Dec 1982 1450 MST

OPERATION: Private training

PLACE: Drumheller Alt 51/30N 112/45W

LOCALE: Paved runway 3900' by 75' 2597' asl

WEATHER: Wind SSW 3 kt vis 15+ sky clear temp 0°C

PILOT: Private

TOTAL HOURS:	230	ALL TYPES	4	ON TYPE
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LAST 90 DAYS:	15	ALL TYPES	4	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 serious; pass: 1 serious

OCCURRENCE: During take-off, the pilot lost directional control and left the right side of the runway. He pulled the control column and the aircraft became airborne in a steep nose-up attitude. After

clearing a drainage ditch, the right wing struck a wind sock, stalled, rolled inverted and struck the ground in a vertical nose-down attitude.

The pilot had only 4 hours tail wheel experience, all dual. Just prior to lift-off when the aircraft swung slightly left, he overcorrected and was not able to stop the swing to the right until after the aircraft departed the right side of the runway at a 30 degree angle. The pilot likely became airborne to avoid the ditch, and applied excessive back pressure on the controls to avoid striking the wind sock. There is a 34 foot wide, 4 foot deep ditch 100 feet to each side of the runway, and although zoning requirements are met, these ditches pose a serious hazard to aircraft on take-off and landing, should they depart either side of the runway.

82-W20090

Aerostar 601

C-GVOB

DATE: 6 Nov 1982 1845 MST

OPERATION: Charter

PLACE: Aklavik NWT 68/13N 135/00W

LOCALE: Gravel apron area on airport

WEATHER: Wind calm vis 15+ cloud scattered temp -40°C

PILOT: Airline Transport

TOTAL HOURS:	2700	ALL TYPES	450	ON TYPE
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LAST 90 DAYS:	250	ALL TYPES	225	ON TYPE
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DAMAGE: None

CASUALTIES: Crew: 1 serious; pass: 3 uninj.

OCCURRENCE: The pilot had difficulty starting the engines, so he obtained a boost. He started both engines, and then leaned out of the upper open half of the pilot's clamshell door to check that the vehicle operator had stowed the APU boost cables properly and secured the hatch. As he waved his left hand rearwards in a gesture of thanks, it was struck by the propeller.

In addition to his flying duties, the pilot was expected to perform many tasks in support of the charter operation. For 14 days straight, he was on duty about 142 hours including 43 flight hours. On the day of the accident, he was scheduled for three flights - a charter placed between two normal scheduled runs. He completed his non-flying tasks, flew the first scheduled trip, and then flew the outbound leg of the charter. His customer was late for the return leg and the difficulty in starting the engines put the pilot behind schedule for his last assigned trip. It is likely he was fatigued and felt pressured to return in time for the second scheduled run.

82-W20091

Cessna 140

CF-EMC

DATE: 12 Dec 1982 1300 MST

OPERATION: Private recreation

PLACE: Strome Alt 52/50N 112/03W
LOCALE: Flat snow-covered field 2460' asl
WEATHER: Wind calm vis 15+ sky clear temp -8°C

PILOT: Private

TOTAL HOURS:	465	ALL TYPES	414	ON TYPE
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LAST 90 DAYS:	4	ALL TYPES	4	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 1 uninj.

OCCURRENCE: While attempting a ski take-off from a snow-covered farm field, the pilot found that the aircraft would not accelerate above 30 mph. As the end of the field was approaching, he attempted a 180 degree turn on one ski while manoeuvring between a farm machine and a fence. The left landing gear leg folded under the fuselage damaging the wing and propeller.

82-W20092

Piper PA38-112

C-GRLK

DATE: 17 Dec 1982 1330 MST

OPERATION: Specialty training

PLACE: 8 mi N of Sangudo Alt 53/57N 114/52W

LOCALE: Snow-covered stubble field 2425' asl 984' long

WEATHER: Wind calm vis 15+ cloud 9000' broken temp -7°C

PILOT: Private

TOTAL HOURS:	55	ALL TYPES	45	ON TYPE
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LAST 90 DAYS:	3	ALL TYPES	3	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 1 uninj.

OCCURRENCE: While on a low level (500 ft agl) inspection flight, the engine misfired and appeared to lose power. The pilot was able to carry out a successful landing in a stubble field. Unable to see anything wrong, he restarted the engine. He noted an excessive RPM drop on checking carb heat, and continued application resulted in a rise to a normal level, leading him to conclude that carb ice was the problem. He then decided to take off, although his rental agreement obliged him to contact the operator in these circumstances.

The short (984 ft) stubble field was covered with 4 to 5 inches of snow, and he aborted the first run due to slow acceleration. On the second run he held the wheel fully back, but the nose wheel continued to roll in the snow until approximately 45 KIAS, when it rose abruptly and the aircraft lifted off in a very nose-high attitude. The pilot shoved the wheel fully forward to avoid a stall, but the aircraft touched down in a nose-high attitude 60 feet from a bordering fence, then skipped, caught the gear in the fence, and crashed nose- down.

The inexperienced pilot should have contacted the operator and was unwise to attempt take-off with a passenger on board. The Operating Handbook indicates that an 825 foot ground run would be required on a paved runway, so the field was not long enough. An

adjoining field had 2600 feet of level ground available. The Handbook recommends easing back on the control wheel to raise the nose wheel as soon as possible, as opposed to the pilot's technique. Due to a T-Tail configuration, the elevator is not in the propwash, and is ineffective at low speed, but it takes effect suddenly and with considerable force, as evidenced by the sudden pitch-up. The pilot was warned about this during training, but apparently had forgotten.

82-W20093

Cameron V-65

C-GTUT

DATE: 27 Dec 1982 1500 MST

OPERATION: Private recreation

PLACE: 6 mi E of Pincher Creek Alt 49/30N 113/49W

LOCALE: Flat tree-bordered farm yard

WEATHER: Wind W 4 kt vis 15+ sky clear temp -5°C

PILOT: Free Balloon and Airline Transport

TOTAL HOURS:	5450	ALL TYPES	250	ON TYPE
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LAST 90 DAYS:	30	ALL TYPES	15	ON TYPE
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DAMAGE: None

CASUALTIES: Crew: 1 uninj; pass: 1 serious, 1 uninj.

OCCURRENCE: The pilot was landing his hot air balloon after a series of short recreational flights. On approach to the selected landing field, he failed to see a powerline crossing his approach path until a passenger cried out a warning. Despite the opening of both burners, the balloon did not rise sufficiently to clear the powerlines; the uprights supporting the basket collided with the lines causing an arc of high voltage electricity. One passenger received severe electrical burns. The balloon slowly settled to the ground undamaged.

82-W20094

Bellanca 8GCBC

C-GNJJE

DATE: 29 Dec 1982 1205 MST

OPERATION: Private business

PLACE: Roach Lake Alt 54/46N 114/54W

LOCALE: Snow-covered ice surface 2500' ASL

WEATHER: Wind WNW 6 kt vis 15+ cloud 4000' broken temp 2°C

PILOT: Private

TOTAL HOURS:	1200	ALL TYPES	100	ON TYPE
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LAST 90 DAYS:	20	ALL TYPES	20	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 1 uninj.

OCCURRENCE: On touchdown, the ski and axle assembly became detached from the undercarriage leg causing a severe ground loop.

The attaching bolts had failed in instantaneous overload; they were probably overstressed from a previous cross-wind landing. (LP 31/82).

82-W20903

Aeronca 7EC

N4384C

DATE: 4 June 1982 1335 PDT

OPERATION: Private ferry

PLACE: 50 miles S of Watson Lake, Yukon 59/30N 127/40W

LOCALE: Tree-bordered river 1700' asl

WEATHER: Wind calm, vis 15+, cloud scattered

PILOT: Commercial

TOTAL HOURS: 1400 ALL TYPES 400 ON TYPE

LAST 90 DAYS: 150 ALL TYPES 50 ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 minor.

OCCURRENCE: The pilot was flying through northern B.C. en route from California to Alaska. The pilot stated that he had landed at Williston Lake and topped up with fuel from his own jerry can; he was then planning to land at Watson Lake for fuel. About 50 miles south of Watson, the engine failed due to fuel exhaustion and the pilot carried out a forced landing on the river bank.

Several large changes of altitude to avoid weather, necessitating the use of higher power settings and rich mixture for extended periods of time, had resulted in a higher rate of consumption than expected. The pilot reported that when the tachometer was later removed and bench checked, it was found to be undereading at most rpm settings, ie. for 2000 indicated, the rpm was actually 2130.

The engine was found to be serviceable and capable of operating after the accident.

82-W20905

Thorp T18

N75JC

DATE: 26 Jul 1982 1950 PDT

OPERATION: Private recreation

PLACE: 25 mi NW of Fort Nelson BC 59/11N 123/11W

LOCALE: Flat tree-covered area 1100' asl

WEATHER: Wind WNW 9 G 18 kt vis 3 sky obscured temp 26°C

PILOT: Commercial

TOTAL HOURS: 2200 ALL TYPES 100 ON TYPE

LAST 90 DAYS: 18 ALL TYPES 16 ON TYPE

DAMAGE: Destroyed

CASUALTIES: Crew: 1 fatal

OCCURRENCE: While on a flight from Watson Lake, Yukon, to Fort Nelson, BC, the homebuilt aircraft broke up. Witnesses on the ground reported hearing an aircraft flying overhead, followed by an explosion-like noise. An air search located portions of the aircraft scattered along a three mile wreckage path. The search was severely hampered by dense bush and low visibility caused by smoke from a distant forest fire; to this date, substantial portions of the aircraft have not been located.

The failure to locate much of the wing made it difficult to determine the break-up sequence. The evidence suggests that the wing failed by upward bending as a result of high negative "G"

loads - this is indicative of failure of the horizontal tail. Evidence also suggests that the vertical fin and rudder separated early in the break-up sequence. All fracture surfaces examined were consistent with an overload failure; there was no evidence of pre-cracking or progressive failure.

The weather at the time of the occurrence was reportedly below VFR. Smoke from the forest fire had reduced visibility to about 1/4 mile. Other pilots flying in the area reported wind gusting to 40 kts with moderate mechanical turbulence. These conditions, coupled with the pilot's lack of instrument flying experience and the Thorp T-18's sensitive flight controls, could have led to overcontrolling or a loss of control. This, in turn could have resulted in exceeding the design limits for the aircraft, and structural failure.

Eyewitnesses reported the aircraft landed very heavily in Watson Lake. Examination of the landing gear legs revealed they were both bent outwards and to the rear. These bends were not the result of the accident as the landing gear assembly struck the ground inverted. Rather, it is possible the bending resulted from the hard landing. If so, some form of unnoticed structural damage may have occurred during landing that led to a failure in flight.

Investigators determined the aircraft was not built to the specifications and standards required by the designer. A number of engineering drawings had not been complied with, and numerous modifications considered critical by the designer were not incorporated. These included strengthening of the main tail plane spar, and modifications to the mass balance weights to reduce the probability of flutter.

Investigators concluded the aircraft was not airworthy at the time of the accident and the break-up most probably was the result of the builder's failure to adhere to designer specifications. It is probable the initial failure was caused by flutter, and it is possible that the break-up was influenced by the prevailing weather and the earlier hard landing. LP 333/82

82-W20906

Bellanca 17-30A

N201DC

DATE: 15 Sep 1982 1015 MDT

OPERATION: Private recreation

PLACE: 43 mi SW of Rocky Mountain House Alt 51/57N 115/51W

LOCALE: Snow-covered mountains 8300' asl

WEATHER: Vis 40 cloud 7500' overcast

PILOT: Private

TOTAL HOURS:	700	ALL TYPES	175	ON TYPE
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LAST 90 DAYS:	35	ALL TYPES	35	ON TYPE
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DAMAGE: Destroyed

CASUALTIES: Crew: 1 fatal; pass: 1 fatal

OCCURRENCE: The pilot departed Spokane, Wash. on a VFR flight; he did not arrive at his destination, Edmonton. His last known position was overhead Cranbrook, BC at 11000 ft, one hour later. An extensive air search failed to locate any trace of the aircraft. Hunters discovered the wreckage two months after it was declared missing; both occupants had perished in the crash.

The aircraft crashed in mountainous terrain, 40 miles south of Rocky Mountain House, Alt. It had impacted an 8300 ft. ridge, 20 ft below the crest. At impact, the aircraft was heading east in level flight with considerable engine power.

No evidence of pre-impact failure of the aircraft or incapacitation of the pilot could be found.

Weather conditions along the route had deteriorated from clear skies to a cloud ceiling of 7000-8000 ft in the vicinity of the accident site. The cloud resulted from a trowal moving southeastward.

The pilot's actions cannot be established with certainty, but it is probable that as he approached the trowal, he descended from his initial cruising altitude (11000 ft.) to approximately 7000 ft. to stay below the approaching cloud. Terrain heights would have precluded further flight along the intended route, and it is likely the pilot turned east to parallel the trowal and leave the mountainous area.

The ridge the aircraft impacted is located at the east end of a deep, narrow valley. Investigators concluded the aircraft struck the ridge while the pilot was attempting to outclimb the rising terrain.

82-W25001

Sting Ray Ultra-light

None

DATE: 10 May 1982 1600 MDT

OPERATION: Private recreation

PLACE: Red Deer Alt 52/14N 113/50W

LOCALE: Flat cultivated field 2900' ASL

WEATHER: Wind gusty vis 15+ sky clear temp 20°C

PILOT: Unlicensed

TOTAL HOURS:	230	ALL TYPES	50	ON TYPE
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LAST 90 DAYS:	Unknown	ALL TYPES	unknown	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 serious

OCCURRENCE: The hang glider was fitted with a removable power pack driving a pusher propeller; it was observed to circle several times within the confines of a field, and then suddenly dove to the ground from an estimated height of eighty feet.

The weather was warm and clear with many whirlwinds reported in the area. Conditions were such that winds would go from calm to strong in a few seconds with directions varying considerably.

Because hang gliders are flown by weight-shift control, they are difficult to fly in strong gusting winds or heavy turbulence. The pilot had been warned by his instructor not to fly under such conditions.

82-W25002

Birdman Atlas Ultra-light

None

DATE: 11 May 1982 1930 MDT

OPERATION: Private recreation

PLACE: 10 mi S of Winterburne Alt 53/23N 113/54W

LOCALE: Rolling grass-covered area 2200' asl

WEATHER: Wind calm vis 15+ sky clear

PILOT: Unlicensed

TOTAL HOURS:	160	ALL TYPES	160	ON TYPE
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LAST 90 DAYS:	Unknown	ALL TYPES		ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 serious

OCCURRENCE: Shortly after take-off, using full throttle, the pilot reported that the engine failed and he attempted a forced landing straight ahead. The ultra-light failed to clear some hydro wires causing it to cartwheel and crash inverted.

Ultra-light aircraft are not required to have a C of A and airworthiness consists of the pilot's operating procedures and the reputation of the manufacturer. As a consequence, the owner is free to make any modifications he desires.

In this case, a new and more powerful engine had been recently installed by the owner assisted by a mechanic. It came from a snowmobile, and because of its peculiar adaption, had to be installed inverted. The automatic oil injection system, however, did not supply sufficient oil at full throttle due to the inverted engine. The engine had partially seized from lack of lubrication.

The pilot reported that this was the first time he had used full throttle for take-off.

82-W25007

Birdman Atlas - Ultra-light

Not reg.

DATE: 19 Sep 1982 1300 MDT

OPERATION: Private training

PLACE: 1 mi E of Lacorey Alt 54/27N 110/45W

LOCALE: Grass-covered hills

WEATHER: Wind calm vis 15+ sky clear temp 12°C

PILOT: Unlicensed

TOTAL HOURS:	.3	ALL TYPES	.3	ON TYPE
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LAST 90 DAYS:	.3	ALL TYPES	.3	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 minor

OCCURRENCE: The pilot had been airborne only two or three minutes when he decided to land because of the turbulence. The aircraft was observed at low altitude over a farm field circling left and descending for the landing. The pilot then appeared to climb and turn, missing one set of power lines and a line of trees before crashing into a second set of wires. It appears he did not properly judge his approach to avoid the obstacles.

The pilot was untrained and unfamiliar with his aeroplane. He bought it second-hand; there was no dealer to suggest he receive proper flying instructions. At the time of the accident, air regulations did not require pilots of ultra-lights to be licensed.

82-W25008 Birdman Atlas XC Ultralight Not reg.

DATE: 22 Sep 1982 2000 MDT

OPERATION: Private recreation

PLACE: near Rosevear Ferry Alt 53/40N 116/09W

LOCALE: Flat tree-covered field

WEATHER: Wind calm vis 15+ sky clear temp 17°C

PILOT: Unlicensed

TOTAL HOURS:	14	ALL TYPES	14	ON TYPE
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LAST 90 DAYS:	13	ALL TYPES	13	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 fatal

OCCURRENCE: A self-taught pilot was flying at approximately 300 feet over an open farm field. Witnesses heard the engine stop abruptly - the aircraft was seen to zoom up, dive down and level off, then dive and crash from tree-top height. The pilot was not wearing a protective helmet.

This type of snow-mobile engine is not subject to airworthiness standards for manufacture, and the owner experimented while performing his own maintenance. The engine seized due to overheating. The pilot had installed too small a carburetor jet, causing the engine to run lean and hot.

It appears that the pilot may have attempted to start the failed engine while airborne, and lost control of the machine. Manoeuvring this ultra-light is accomplished by shifting the pilot's weight and the force required to pull the recoil starter could have upset his balance causing him to stall the aeroplane.

83-W30001 Piper PA18-150 CF-MTK

DATE: 19 Jan 1983 1530 MST

OPERATION: Private recreation

PLACE: Albright Lake Alt 55/29N 119/49W

LOCALE: Snow-covered frozen lake 2620' asl

WEATHER: Wind calm vis 25+ sky clear temp -14°C

PILOT: Private

TOTAL HOURS:	500	ALL TYPES	200	ON TYPE
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LAST 90 DAYS:	10	ALL TYPES	10	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 serious; pass: 1 serious

OCCURRENCE: The pilot was demonstrating circuits in his ski-equipped aircraft. On the third approach, the aircraft stalled and entered a spin; the pilot was unable to recover before the aircraft struck the frozen surface of the lake. He had allowed his airspeed to decrease below the stall speed, and although not required, a stall warning device would have likely prevented this accident.

83-W30004

Cessna A185F

C-GZHA

DATE: 14 Feb 1983 1105 MST

OPERATION: Private Business

PLACE: 2 miles W of Yellowknife Arpt NWT 62/29N 114/30W

LOCALE: Tree-covered area 675' asl

WEATHER: Wind calm vis 10 cloud 2000' overcast temp -20°C

PILOT: Airline transport

TOTAL HOURS:	6000	ALL TYPES	655	ON TYPE
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LAST 90 DAYS:	119	ALL TYPES	30	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 fatal; pass: 2 fatal.

OCCURRENCE: During the approach, the pilot exhibited signs of severe disorientation. Although cleared for a straight-in approach to Runway 09, ATS personnel saw the aircraft on a base leg to Runway 33. When the pilot was instructed to rejoin the circuit for Runway 09, the aircraft flew off to the west and then approached the runway at an angle while at low altitude. When about 2 miles from the threshold, the nose and right wing slowly dropped and the aircraft flew into the ground. It impacted while in a 30 degree bank to the right at a descent angle of about 10 degrees.

No evidence of pre-impact structural failure was found. However, examination of the wreckage did reveal a large crack in the exhaust tail pipe at the point where it was welded to the muffler. This crack had propagated in a fatigue mode and extended 2/3 of the circumference of the exhaust tail pipe. Its large size would have allowed exhaust gas to enter the cabin heating system. It was determined that an unapproved 6½ inch extension had been added to the exhaust muffler tail pipe; laboratory analysis concluded that this probably initiated the fatigue crack.

Autopsies conducted on the pilot and passengers determined all were incapacitated to various extents by carbon monoxide poisoning. Carboxyhemoglobin levels in tissue samples indicated the pilot was unconscious at impact. Injury patterns on the pilot and front right seat passenger suggest that at impact, the latter was at the controls. Investigators concluded the poisonous gas leaked from

the crack in the exhaust tail pipe; this in turn caused the pilot's disorientation during the approach, and his eventual loss of consciousness. It is likely the front seat passenger was not totally incapacitated and was attempting to regain control at the time of impact. The aircraft was equipped with a carbon monoxide detector, which apparently failed to alert the pilot and passengers.

Investigators also determined that a large number of this, and similar type aircraft have been operating for years with various tail pipe extensions fitted. Although this modification is not approved by the manufacturer or the regulatory authority, these aircraft have been granted valid Certificates of Airworthiness. (LP 102/83).

83-W30005

Champion 7GCB

C-FMOK

DATE: 15 Mar 1983 0850 MST

OPERATION: Private recreation

PLACE: 1 mi SE of Rolla BC 55/53N 120/10W

LOCALE: Rolling snow-covered area 2300' asl

WEATHER: Wind calm vis 15 cloud 5000' overcast temp -5°C

PILOT: Private

TOTAL HOURS:	210	ALL TYPES	150	ON TYPE
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LAST 90 DAYS:	1	ALL TYPES	1	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj.

OCCURRENCE: After a short flight, the pilot landed in a snow-covered farm field. He then decided to fly some circuits and took off in an easterly direction. Immediately after take-off, he began a 180 degree turn in preparation for a landing to the west. During the turn, the aircraft stalled and touched down heavily, left wing low. It swerved to the left and came to rest 40 ft from the first point of impact.

This was the pilot's first flight in six months; he had flown very little in the previous year. Rising terrain to the east and the low altitude at which the turn was conducted, left insufficient altitude to recover from the stall.

83-W30007

Cessna 152

C-GDUJ

DATE: 26 Mar 1983 1217 MST

OPERATION: Flying Club training

PLACE: Cooking Lake Arpt Alt 53/26N 113/07W

LOCALE: Icy grass-covered strip 2500' by 150' 2430' asl

WEATHER: Wind calm vis 12 sky clear temp 3°C

PILOT: Commercial

TOTAL HOURS:	1000	ALL TYPES	600	ON TYPE
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LAST 90 DAYS:	180	ALL TYPES	170	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 2 uninj.

OCCURRENCE: The instructor and student arrived at Cooking Lake Airport to practise soft field landings. The wind was calm and the instructor demonstrated a touch-and-go on runway 10. On the second approach, another aircraft was observed landing on runway 28 so the instructor overshot. Circuits were then resumed on runway 28. The student touched down in the first quarter of the strip; he reselected flaps to 10 degrees, applied full power, selected carb heat to cold and assumed a nose-high attitude. When the aircraft had not attained flying speed at the three-quarter point, the instructor took control and aborted the take-off; the aircraft overran the runway end by 309 feet.

The grass strip had softened considerably during the day. It was icy and muddy with puddles in low spots. Runway 28 has an upslope of about 1 degree. These conditions, together with the calm wind, would significantly increase both take-off and stopping distances. Thus, the aircraft would have been slow to accelerate and once the decision to abort was taken, poor braking action resulted in the overrun. Considering these factors, the airport was not suitable for training purposes.

83-W30008

Cessna 152

C-GBJY

DATE: 29 Mar 1983 1100 MST

OPERATION: Specialty training

PLACE: 1 mi E of Bonnyville Arpt Alt 54/15N 110/41W

LOCALE: Flat snow-covered field 1834' asl

WEATHER: Wind calm vis 25 cloud 4500' broken temp 3°C

PILOT: Student

TOTAL HOURS:	57	ALL TYPES	57	ON TYPE
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LAST 90 DAYS:	39	ALL TYPES	39	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj.

OCCURRENCE: In preparation for a solo flight, the instructor and student "eyeballed" the fuel quantity. After about one and a half hours of flight, the engine failed due to fuel exhaustion, and a wing tip was dragged during the forced landing. The instructor and the student both misjudged the fuel quantity before flight.

83-W30010

Maule M4-210C

C-GXWC

DATE: 19 Apr 1983 1830 MST

OPERATION: Private recreation

PLACE: 22 mi SW of High River Alt 50/24N 114/17W

LOCALE: Flat grass-covered area 4206' asl

WEATHER: Wind 20 G 30 kt vis 15+ sky clear temp 13°C

PILOT: Private

TOTAL HOURS:	300	ALL TYPES	255	ON TYPE
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LAST 90 DAYS:	60	ALL TYPES	60	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 1 uninj.

OCCURRENCE: The pilot landed without incident in a rough cultivated field at a ranch. After a brief visit, he decided to take-off from the road between the farm buildings and a fence instead of the landing field.

The aircraft was airborne at a curve in the road, but when it crossed the fence, the tailwheel caught a brace, tearing out the belly, tailwheel and rudder. Without rudder control, the aircraft turned to the right; the pilot reduced power and landed heavily, damaging the gear, belly and propeller.

The pilot had taken off from this area several times before. Although he considered his take-off weight to be the same, indications are that he didn't take into account the increase in temperature. Not realizing that density altitude would increase the take-off distance, he attempted to force the aircraft into the air and it struck the fence in a nose-high attitude.

83-W30011

Cessna A185F

C-GHKC

DATE: 21 Apr 1983 1800 MST

OPERATION: Charter

PLACE: Lac la Martre NWT 63/07N 117/20W

LOCALE: Snow-covered frozen lake 870' asl

WEATHER: Wind E 11 kt vis 15+ sky clear temp 15°C

PILOT: Commercial

TOTAL HOURS:	5500	ALL TYPES	1500	ON TYPE
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LAST 90 DAYS:	15	ALL TYPES	15	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 3 uninj.

OCCURRENCE: The aircraft was taxiing on skis over rough and sticky snow when the right gear collapsed.

Investigation revealed that the support bracket for the right gear failed in overload mode as a direct result of exfoliation corrosion throughout 30 percent of its area. (LP 189/83).

83-W30012

Grumman G-164A

C-GWND

DATE: 22 Apr 1983 0630 MST

OPERATION: Private application

PLACE: 6 mi NW of La Corey Alt 54/32N 110/48W

LOCALE: Rolling grass-covered field 2000' asl

WEATHER: Wind calm vis 15 sky clear temp 25°C

PILOT: Senior Commercial

TOTAL HOURS:	7500	ALL TYPES	8	ON TYPE
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LAST 90 DAYS:	10	ALL TYPES	8	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 minor

OCCURRENCE: The pilot was taking off on a fertilizer operation. He reported that during the take-off roll, the aircraft became airborne as it passed over a small hill. It then bounced and became airborne

again but still did not gain sufficient flying speed. The aircraft was heading towards a row of trees so the pilot dumped the load, but was unable to climb away. The aircraft passed through the trees and came to rest about 150 feet beyond.

Performance charts from the aircraft handbook indicate that a take-off with maximum all up weight at this temperature on a hard surface, would require nearly all of the available runway. With the stubble field surface and two small hills halfway down the strip, the take-off would be difficult.

83-W30016

Bell 206B

C-GJSL

DATE: 18 May 1983 0800 MDT

OPERATION: Specialty application

PLACE: 5 mi W of Edson Alt 53/35N 116/36W

LOCALE: Flat compact area 3300' asl

WEATHER: Wind NW 5 kt vis 40 cloud 6000' scattered temp 6°C

PILOT: Commercial Rotorcraft

TOTAL HOURS:	8630	ALL TYPES	4488	ON TYPE
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LAST 90 DAYS:	63	ALL TYPES	63	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 minor

OCCURRENCE: The pilot was involved in a seeding operation using a bucket slung below the helicopter. Between loads, the pilot would jettison the empty bucket and hover over the full one. A ground assistant would then hook up the bucket, and using hand signals, communicate to the pilot when it was ready to be lifted.

On the third run, the pilot was hovering over the full bucket and awaiting hook-up, when the left rear skid (equipped with bear paws) became entangled with the seeder frame. The pilot attempted to manoeuvre free, but was unable to do so; he lowered the helicopter, it landed on the bucket hook and rolled on its right side.

83-W30018

Cessna 182A

C-GXFI

DATE: 29 May 1983 1630 MDT

OPERATION: Private business

PLACE: McGregor Lake Alt 50/21N 112/50W

LOCALE: Rolling grass-covered pasture 3000' asl

WEATHER: Wind NE 10 kt vis 40 cloud scattered temp 20°C

PILOT: Private

TOTAL HOURS:	100	ALL TYPES	80	ON TYPE
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LAST 90 DAYS:	30	ALL TYPES	30	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj.

OCCURRENCE: The pilot landed by a lake shore after conducting two high and three low level passes to inspect the site. He selected full flap, and at touchdown applied maximum braking while holding full aft elevator. The aircraft rolled briefly before striking an outcropping of rock; the nose gear assembly was torn out.

The area selected by the pilot was in a confined area perilously close to the lake; large rocks and anthills were on the gently rolling grass surface. Also, cattle were grazing in the landing area. The pilot had never visited the site but judged its suitability solely by aerial inspection.

Ideally, in rough field landings, the nosewheel is lowered gently after the speed has diminished to avoid unnecessary nose gear load. Although necessary because of the confined area, the use of heavy braking kept the nosewheel on the surface making the oleo vulnerable to obstacles.

83-W30019

Piper PA34-200T

C-GGIB

DATE: 2 Jun 1983 1600 PDT

OPERATION: Private business

PLACE: 1 mile N of Summit BC 58/40N 124/39W

LOCALE: Mountainous area 5200' asl

WEATHER: Sky obscured with rain and snow showers

PILOT: Private

TOTAL HOURS:	1400	ALL TYPES	850	ON TYPE
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LAST 90 DAYS:	15	ALL TYPES	15	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 serious; pass: 1 fatal.

OCCURRENCE: While following the Alaska highway the pilot entered an area of snow and rain showers. He was previously aware of these conditions. He attempted to remain VFR by slowing down the aircraft and turning back.

During the turn all visual reference was lost so he applied full power and attempted to outclimb the rising terrain. He saw the mountain at the last minute, and pulled back hard on the control column just before impact with the 25 degree upslope.

The passenger might have lived if he had used the available shoulder harness. The pilot was not badly injured in the crash but was seriously hurt the next morning; he fell off a cliff while trying to walk to safety.

83-W30022

Cessna A188B

C-GWWD

DATE: 9 Jun 1983 1230 MDT

OPERATION: Specialty application

PLACE: Bonnyville Alt 54/18N 110/45W

LOCALE: Flat tree-covered area 1860' ASL

WEATHER: Wind W 15G20 kt vis 15+ sky clear temp 25°C

PILOT: Commercial

TOTAL HOURS:	1600	ALL TYPES	1200	ON TYPE
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LAST 90 DAYS:	34	ALL TYPES	34	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj;

OCCURRENCE: The pilot was calibrating his spray gear. Flying east parallel to the runway at about 80 feet, he turned to the north behind a grove of trees in a 60 degree bank. The aircraft experienced a severe lateral oscillation followed by a stall. The pilot recovered just above the ground. A glance at the tachometer indicated the engine RPM was 2250, but had been originally set at 2400 RPM and 24 inches manifold pressure. Approaching an area of 30 to 50 feet high trees, he climbed rapidly but could not clear them. Fortunately, he was able to continue the circuit and land on the runway.

Normally, the pilot would fly this type of operation in light wind conditions. This day, the winds were strong and since he was flying down wind before the turn, his ground speed gave the illusion of a higher airspeed. As he was flying at low level, he used visual references, and paid little attention to the lower instrument panel. Locating a separate airspeed indicator on the upper panel would allow the pilot to monitor airspeed during low altitude manoeuvres.

The aircraft stall warning detector failed to operate and when tested, functioned intermittently due to high resistance contamination on the switch contacts. The detector vane was also found bent downwards about 28 degrees from the specified attitude. The lack of impact damage in this area suggests the vane was bent before the accident. Regardless of the serviceability of the stall warning device, it would have been almost useless as the pilot was wearing a helmet and headset and the system was not wired into the audio system.

The pilot had only a few hours sleep and had not eaten prior to the flight. He indicated it was common to work 16 to 18 hours a day during spray season. The pilot had a similar accident in 1979 where he stalled the same aircraft in a steep turn; fatigue was also present.

Although not a factor in the accident, the unapproved smoke generating system was considered a safety hazard. The gallon can in the cockpit contained an unidentified fluid and was vented through a slit in the lid. As the installation was susceptible to leaking, it was a fire hazard. (LP 224/83)

83-W30026

Cessna 172N

C-GYPB

DATE: 21 Jun 1983 1900 YST

OPERATION: Charter

PLACE: 35 miles S of Dawson City YT 63/36N 138/49W

LOCALE: Gravel runway 1400' by 35' 2200' asl

WEATHER: Wind light vis 20+ sky clear temp 20°C

PILOT: Commercial licence

TOTAL HOURS:	525	ALL TYPES	275	ON TYPE
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LAST 90 DAYS:	62	ALL TYPES	62	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 serious

OCCURRENCE: After touchdown on a short gravel strip, the pilot held the nose up to increase drag. The aircraft became airborne and he applied power to go around but neglected to raise the flaps. Acceleration was slow and the airspeed was too low to permit the aircraft to climb; after overrunning the runway, it impacted a sharp rise.

83-W30029

Cessna U206C

CF-YJC

DATE: 11 Jul 1983 1115 MDT

OPERATION: Private Business

PLACE: Cooking Lake Aerodrome Alt 53/26N 113/07W

LOCALE: Grass runway 2500' by 150' 2430' ASL

WEATHER: Wind ESE 5 kt vis 25+ sky clear temp 20°C

PILOT: Private

TOTAL HOURS:	5200	ALL TYPES	1500	ON TYPE
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LAST 90 DAYS:	300	ALL TYPES	18	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 1 uninj.

OCCURRENCE: During take-off - just as the aircraft became airborne - the pilot's seat slid all the way back; the pilot was then unable to reach the rudder pedals and he lost control of the aircraft. It crashed 400 feet to the left of the runway, 1000 feet from the threshold.

Examination of the wreckage revealed that the rail guides and rollers of the pilot's seat were worn. This, coupled with aircraft acceleration, allowed the seat back to tip rearward, lifting the front rollers off the rails. This in turn caused the adjustment pin to lift out of the locking hole, and the seat slid rearward.

The aircraft had undergone a CCI inspection four days prior to the accident, and was deemed airworthy. The condition of the condition of the seat rail guides and rollers indicates the inspection was inadequate.

83-W30044

Cessna A188B

C-GYHO

DATE: 27 Aug 1983 0900 MDT

OPERATION: Specialty application

PLACE: 7 miles W of Sexsmith Alt 55/19N 119/04W

LOCALE: Flat cultivated area

WEATHER: Wind calm vis 15+ sky clear temp 21°C

PILOT: Senior Commercial licence

TOTAL HOURS:	1850	ALL TYPES	850	ON TYPE
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LAST 90 DAYS:	120	ALL TYPES	6	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj.

OCCURRENCE: While the pilot was on a crop spraying run, the engine lost oil pressure then power. The load was dumped, and during the forced landing, the aircraft ground looped.

The reason for the loss of pressure remains undetermined, but the operating company was aware of high oil consumption.

DATE: 3 Apr 1983 0735 PST

OPERATION: Private recreation

PLACE: 80 miles SE of Fort Nelson BC 57/42N 121/08W

LOCALE: Rolling tree-covered area 2000' asl

WEATHER: Sky obscured vis 0 in fog and clouds

PILOT: Unlicensed

TOTAL HOURS: 40 ALL TYPES unknown ON TYPE

LAST 90 DAYS: unknown ALL TYPES unknown ON TYPE

DAMAGE: Destroyed

CASUALTIES: Crew: 1 serious; pass: 1 fatal.

OCCURRENCE: During a VFR flight through hilly terrain, the pilot encountered low cloud and fog. He diverted from his planned route along the Alaska highway and began following a railway line. Low cloud and fog was again encountered and while he was attempting to maintain visual contact with the ground, the aircraft flew into gently rising terrain.

The weather at the departure and destination aerodromes was VFR. No reports of enroute weather were available, but forecasts obtained by the pilot did indicate that in high ground between the two aerodromes, below VFR conditions would prevail. The pilot was unlicensed and had received no formal flight training.

DATE: 13 Apr 1983 1127 YST

OPERATION: Private recreation

PLACE: Whitehorse Arpt YT 60/43N 135/04W

LOCALE: Paved runway 4000' by 100' 2305' asl

WEATHER: Wind VRB 12G19 kt vis 40 cloud 12000 broken temp 4°C

PILOT: Private

TOTAL HOURS: 645 ALL TYPES 530 ON TYPE

LAST 90 DAYS: 24 ALL TYPES 24 ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj. pass: 1 uninj.

OCCURRENCE: When in visual range of Whitehorse, the pilot received the weather and traffic information and was cleared for a left-hand approach to runway 13 right. Another aircraft was on a close-in approach to the same runway so the pilot was cleared for 13 left. The meteorological information at this time was "variable winds from 090 at 5 or less".

The pilot stated that on approach, he encountered strong gusting cross-winds. Shortly after touchdown, a gust of wind lifted the left wing and as the pilot was recovering, another gust raised it higher, the right wing contacted the ground and control was lost. The right gear failed, and the aircraft swung in an arc to the right, coming to rest off the runway.

Before and after the accident, gusting winds of 19 to 20 kts and 40 degrees off the runway were reported. The wind speed given by the tower just prior to landing may have given the pilot a false sense of security. With these conditions however, the cross-wind limitations of the aircraft were exceeded.

This particular airport, situated on a raised plateau along a deep river valley, is frequently subject to gusting cross-winds.

83-W30904

Piper PA-31T

N5SL

DATE: 28 Aug 1983 1916 PST

OPERATION: Private business

PLACE: Burwash Arpt YT 61/22N 139/02W

LOCALE: Gravel runway 6000' by 150' 2643' asl

WEATHER: Wind ESE 5 kt vis 15+ sky clear temp 17°C

PILOT: Airline Transport licence

TOTAL HOURS:	8000	ALL TYPES	1600	ON TYPE
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LAST 90 DAYS:	75	ALL TYPES	65	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj. pass: 2 uninj.

OCCURRENCE: After landing, the pilot turned in at the taxiway to park on the apron. He asked the Flight Service Station operator the best place to park and was told, "To your left is fine". As he was parking, the nosewheel dropped into a ground-squirrel hole.

The aircraft operator's son had previously inspected the airport for suitability; but had paid little attention to the apron. In addition, the pilot had minimal experience with this type of aerodrome.

The airport is licensed and operated by the Yukon Territorial Government. The taxiway and apron were laid down at the time the main strip was gravelled and packed. At a later date, the taxiway and apron were equipped with lights which outlined an area considerably larger than originally packed. This additional area is infested with ground-squirrel holes making it unsuitable for aircraft parking. Airport inspections and maintenance appear to have focused on the runway while ignoring the apron.

83-W35001

Quicksilver MX Ultralight

None

DATE: 18 Jan 1983 1525 MST

OPERATION: Private training

PLACE: South Calgary Aerodrome 50/49N 113/49W

LOCALE: Paved runway 3500' by 50' 3355' asl

WEATHER: Wind calm vis 15+ sky clear

PILOT: Unlicensed

TOTAL HOURS:	70	ALL TYPES	1	ON TYPE
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LAST 90 DAYS:	1	ALL TYPES	1	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 serious.

OCCURRENCE: The pilot had just acquired the new ultralight. He taxied around for some time then took off, flew for an hour and landed for fuel.

He flew a circuit and carried on a few feet above the runway; he then pulled into a steep climb without adding power the aircraft stalled and fell onto the runway collapsing the nose gear.

The pilot was self-taught, and all his previous time was on a weight shift model with different control characteristics. The new model had three-axis control, with a more powerful engine and reverse throttle movement.



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AIRCRAFT ACCIDENTS

-civil aircraft in Canada

AVIATION SAFETY INVESTIGATION DIVISION
AVIATION SAFETY BUREAU

Issue 3

1984

CAI
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SYNOPSSES OF ACCIDENTS

The Aviation Safety Investigation Division - an agency of Transport Canada - prepares this publication from preliminary information stored in electronic data processing equipment. This system uses abbreviations and short narratives; a guide to the synopsis form is on the following page.

Your attention is drawn to the fact that the prime intent of this publication is the dissemination of aircraft accident information to promote the prevention of recurrence. Often, interested parties employ this information for purposes other than this, and in doing so, find the information incomplete or delayed. Such persons should be aware that investigations are for the benefit of Government agencies and the aviation community in their attempt to promote aviation safety.

This publication is also available in French.	Cette publication est également disponible en version française.
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A limited number of copies of this publication are retained and are available from:	On peut obtenir des exemplaires de la présente publication en nombre limité auprès de l'organisme suivant:
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Transport Canada Aviation Safety Investigation Aviation Safety Bureau Transport Canada Building Ottawa, Ontario K1A 0N8	Transports Canada Enquêtes sur la sécurité aérienne Bureau de la sécurité aérienne Edifice Transports Canada Ottawa, Ontario K1A 0N8
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This publication contains synopses of aircraft occurrences in Canada to Canadian and foreign registered aircraft, and Canadian registered aircraft having accidents in foreign countries. Aircraft of Canadian registry having an accident in the United States are reported in a similar document "Aircraft Accident Reports - Brief Format" published by the U.S. Bureau of Aviation Safety of the National Transportation Safety Board. Copies are available from:

U.S. Department of Commerce
National Technical Information Service
Springfield, Va. 22161

EXPLANATORY NOTES

Definition of "Accident"

"Aircraft accident", means an occurrence associated with the operation of an aircraft that takes place between the time the person boards the aircraft with the intention of flight until such time as all persons have disembarked in which:

- (a) any person suffers death or serious injury as a result of being in or upon the aircraft or by direct contact with the aircraft or anything attached thereto; or
- (b) the aircraft receives substantial damage or is destroyed.

(Air Regulations, Part 1, Section 101).

Accident Report Number

This number identifies the occurrence; any queries to Transport Canada should carry this reference. The first letter denotes the Region of responsibility; usually this is the Region of occurrence. The first numeral is the year number in each decade; for example, 1970 appears as a zero, 1971 as 1, and so on. Accidents other than collisions and occurrences to foreign aircraft will be numbered from 001-799 for each year. Accidents involving a collision between two or more aircraft in flight or preparing for flight will be assigned to each aircraft involved. Accidents in Canada to foreign registered aircraft will be assigned numbers from 901-999.

Aircraft Make and Model

The top line of the report contains the type of aircraft involved a brief description of this aircraft, and under "Reg" the registration letters.

Operation

The categories used are those in the Canadian Transport Commission's Directory of Canadian Commercial Air Services.

Damage

One of the definition criteria for "accident" is degree of damage. "Substantial damage means damage or structural failure that adversely affects the structural strength, performance or flight characteristics of an aircraft and that would normally require major repair or replacement of the affected component, except that engine failure, damage limited to an engine, bent fairings or cowlings, dented skin, small punctured holes in the skin or fabric, damage to propeller blades, damage to tires, engine accessories, brakes or wingtips are not deemed to be substantial damage.

(Air Navigation Order, Series VIII, No.1).

Place

Appearing first is the nearest gazetted place followed by the latitude and longitude.

Locale

The pertinent terrain, landing surface, and obstructions. Terrain/airfield altitude is given in feet above sea level (asl). Dimensions are in feet.

Weather

The basic statement includes phenomena at the time and location of the occurrence. Although plain language is used as much as possible some codification may be necessary. The local weather office will be able to answer enquiries on the abbreviations which are too numerous to list here. Sky condition is given in feet above ground, visibility (vis) in miles, temperatures in degrees Celsius unless otherwise noted, wind direction at the nearest cardinal compass point and the windspeed in miles per hour.

Pilot

The licence category is given first, followed by the experience of the pilot-in-command. Blanks signify information not available.

Casualties

Degree of severity is described by the words: killed, serious, minor uninjured (uninj). Individuals are identified as either crew, passengers (pass), or if neither of these two categories, identification of the individual will be given in the narrative. Note that uninjured persons are included in casualties to establish the number of persons involved in the occurrence.

Description of the Occurrence

A brief narrative contains only the elements essential to an understanding of the occurrence, formal assignment of cause(s) is not included.

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82-Q20802	C-FRRH
82-Q20902	N3031 Q
82-Q25001	Not reg.
82-Q25003	Not reg.
82-Q25006	None
83-Q30003	C-FKWY
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82-W25006	None
82-W25009	None
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83-W30030	C-GECP
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83-A30006

Grumman TBM-3E

C-GFPO

DATE: 22 May 1983 1520 AST
OPERATION: Specialty-inspection
PLACE: Sevogle Airstrip NB 47/12N 66/09W
LOCALE: Rolling tree-covered area
WEATHER: Wind calm vis 15+ cloud scattered
PILOT: Commercial
TOTAL HOURS: 6950 ALL TYPES 2000 ON TYPE
LAST 90 DAYS: 4 ALL TYPES 4 ON TYPE
DAMAGE: Destroyed
CASUALTIES: Crew: 1 serious
OCCURRENCE: The aircraft was second in a three plane formation of spray aircraft. Shortly after take-off, a propeller blade broke off and the entire prop assembly was severed from the aircraft. The pilot carried out a forced landing into a heavily wooded area three miles from the airport.

Laboratory analysis determined the propeller blade had failed because of an undetected fatigue crack. An airworthiness directive requires inspections of this model of propeller every 18 months for corrosion, and prescribes machining if necessary, to prevent blade failure. This propeller had been inspected 13 months prior to the accident, but had only flown 3.5 hours, indicating that the crack had not been detected in the inspection.

Corrosion pitting had been found in the last inspection, and the blade had been machined, but the fatigue initiated in the machined area. It was reported that the blade was inspected after machining, in accordance with standard procedures (dye penetrant check). It is not known why the fatigue crack was not detected.

As a result of this investigation, a new airworthiness directive was issued, requiring the use of caustic etch prior to the normal post-machining dye penetrant crack check. This procedure will ensure that any blade cracks will be detected during the inspection process.

83-A30008

Cessna U206G

C-GDIJ

DATE: 3 Jun 1983 1610 ADT
OPERATION: Charter
PLACE: Grand Manan NB 44/46N 66/45W
LOCALE: Enroute
WEATHER: Isolated thunderstorms
PILOT: Commercial
TOTAL HOURS: 1700 ALL TYPES unknown ON TYPE
LAST 90 DAYS: unknown ALL TYPES unknown ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj.
OCCURRENCE: While enroute, an explosion and fire occurred in the left wing tip tank. During the emergency descent, the fire extinguished itself and a safe landing was made at a nearby airport. Although

technical examination revealed that the explosion occurred inside the tank, the source of ignition could not be determined. It was also found that the power supply to the strobe light was not installed nor was it hermetically sealed in accordance with Flint Aero Service Bulletin No. FA-1 dated 2 March 1981.

83-A30009

Ayres S2R-T34

C-GMQC

DATE: 24 Jun 1983 1014 ADT

OPERATION: Private business

PLACE: Upper Blackville NB 46/38N 65/52W

LOCALE: Paved runway 2900' by 50' 100' asl

WEATHER: Wind WSW 5 G 15 vis 15+ cloud scattered temp 26°C

PILOT: Commercial

TOTAL HOURS:	2100	ALL TYPES	400	ON TYPE
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LAST 90 DAYS:	135	ALL TYPES	135	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj.

OCCURRENCE: The pilot was involved in a fire-fighting operation from a company aerodrome. During one take-off attempt, the aircraft became airborne after a ground run of approximately 2,000 feet, then settled back onto the runway. The pilot decided to abort the take-off, and approaching the runway end, attempted a ground loop to the right. The aircraft left the side of the runway, 100 feet from the end, and came to rest on the bank of a small pond.

The runway being used was 2,900 feet long with a 2 per cent upslope. Ambient temperature was 26 degrees C and the wind was varying up to 110 degrees, and gusting from 5 to 15 kts. It was reported that at the time of take-off, the wind gave a tail wind component to the aircraft. As well, the aircraft was operating 1,325 lbs above the maximum AWW of 7,200 lbs.

The combination of runway upslope, above standard temperatures, tail wind and overweight condition, resulted in the required take-off distance exceeding the available runway length. It is apparent that the pilot did not give adequate consideration to these factors when planning this particular take-off.

83-A30013

Grumman TBM-3

CF-AGN

DATE: 4 Jul 1983 1910 ADT

OPERATION: Specialty application

PLACE: Charlo NB 47/59N 66/20W

LOCALE: Paved runway 6000' by 150' 132' asl

WEATHER: Wind n 7 kt vis 12 cloud 2500' scattered temp 22°C

PILOT: Senior Commercial

TOTAL HOURS:	unknown	ALL TYPES	360	ON TYPE
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LAST 90 DAYS:	unknown	ALL TYPES	75	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj.

OCCURRENCE: The pilot had just taken off when he heard an explosion and saw fire and smoke billowing from the right side of the aircraft; he elected to land straight ahead on the remaining runway.

A propeller blade had failed as a result of fatigue cracking. When the blade separated, the propeller and engine assemblies broke away from the aircraft.

83-A30015

Piper PA25-235

C-FXOC

DATE: 18 Jul 1983 0845 ADT

OPERATION: Specialty application

PLACE: Beechwood NB 46/32N 67/40W

LOCALE: Tree-bordered field 300' asl

WEATHER: Wind calm vis 15+ sky clear

PILOT: Commercial

TOTAL HOURS:	2500	ALL TYPES	180	ON TYPE
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LAST 90 DAYS:	100	ALL TYPES	30	ON TYPE
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DAMAGE: Destroyed

CASUALTIES: Crew: 1 uninj.

OCCURRENCE: The pilot was engaged in spraying potatoes. He had started at 0600 and was on his sixth flight when the accident occurred. He departed base with a full load, and since he had some short fields to spray, decided to make three swaths on the longer accident field to lighten his load. The field was narrower at the north end and generally sloped down to the east. He flew the first two swaths without problem, then turned north for the third. At the far end, trees on the right encroached on the field in two steps, the second being 25 feet wide. The marker at the south end was on the outside of the swath.

The pilot cut short his right turn to line up due to rising terrain, and likely inadvertently lined up his left wing with the marker, resulting in inadequate clearance at the far end. He was unaware that he was too close to the trees until the right wing tip struck them. After first impact, the aircraft was uncontrollable and it cartwheeled into the trees, coming to rest inverted. The aircraft was destroyed, but the cockpit remained intact and the pilot was unhurt; he evacuated unassisted. A localized fire started at the rear of the engine which burned for a considerable time. The pilot controlled it with an extinguisher until the local fire department arrived.

83-A30021

Schweizer SGS2-33A

C-GCLF

DATE: 16 Aug 1983 1920 ADT

OPERATION: Private training

PLACE: Greenwood Arpt NS 44/59N 64/55W

LOCALE: Airport infield 2400' long 91' ASL

WEATHER: Wind W 11 Kt vis 15 cloud 2500' SCST temp 25°C

PILOT: Student

TOTAL HOURS:	6	ALL TYPES	6	ON TYPE
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LAST 90 DAYS:	6	ALL TYPES	6	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj.

OCCURRENCE: The glider was too low on final to clear trees in the approach path. It struck tree tops at slow speed, pitched down and dropped to the ground. There was a suitable undershoot area available but students were briefed to stay clear as it was a military zone. The glider was at low level due to lack of drift correction on base leg, misuse of spoilers and incorrect airspeed.

83-A30022

Piper PA28-140

CF-YKR

DATE: 23 Aug 1983 1905 ADT

OPERATION: Private business

PLACE: Grand Manan Island NB 44/46N 66/45W

LOCALE: Grass and gravel runway 1700' by 180' 185' asl

WEATHER: Wind WNW 10 kt vis 15+ sky clear temp 22°C

PILOT: Private

TOTAL HOURS:	117	ALL TYPES	117	ON TYPE
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LAST 90 DAYS:	7	ALL TYPES	7	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 1 uninj.

OCCURRENCE: The pilot flew several circuits and landed to pick up a friend for a local sightseeing trip. The run-up was normal, but on the take-off run (which was an upslope condition, and rough), the pilot reported that the acceleration seemed to be slow. Deciding to abort the take-off, he closed the throttle, applied brakes and attempted to turn off the runway. He was going too fast, and had to carry on straight ahead.

The aircraft overran the strip by some 20 feet. It collided into some alders and ran into rough ground; the nose gear broke off. The limited experience pilot probably did not appreciate that aircraft performance would be degraded by the upslope, rough terrain, an extra passenger and high temperatures.

83-A30023

Schweizer TSC1A2

C-GGIA

DATE: 23 Aug 1983 2000 ADT

OPERATION: Private recreation

PLACE: Fancy Lake NS 44/18N 64/33W

LOCALE: Lake water area

WEATHER: Wind calm vis 15+ sky clear

PILOT: Commercial

TOTAL HOURS:	4481	ALL TYPES	18	ON TYPE
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LAST 90 DAYS:	77	ALL TYPES	6	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj.

OCCURRENCE: While step taxiing, the pilot turned to the right to line up for take-off. The right wing float contacted the water causing the aircraft to waterloop. As the aircraft swung to the right then to the left both wing floats were torn off.

83-A30025

Lake LA4-200C1A2

C-GULO

DATE: 31 Aug 1983 1445 ADT

OPERATION: Commercial non-revenue

PLACE: Grand Manan NB 44/46N 66/45W

LOCALE: Grass runway 1700' by 180'

WEATHER: Sky OVC with fog and rain wind VRB

PILOT: Commercial

TOTAL HOURS:	2700	ALL TYPES	800	ON TYPE
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LAST 90 DAYS:	250	ALL TYPES	250	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj.

OCCURRENCE: The aircraft landed long with a light tail wind. During an overshoot attempt, the aircraft overran the strip, did not become airborne and collided with trees.

The pilot reported that the visibility was poor and the approach was high and fast. The airport is not licensed and had no wind sock. In addition the runway was soft and wet.

83-A30026

Cessna 185

C-FBZA

DATE: 9 Sep 1983 0758 ADT

OPERATION: State

PLACE: Charottetown Arpt PEI 46/17N 63/08W

LOCALE: Paved runway 3000' by 175' 178' asl

WEATHER: Wind NW 8 kt vis 15 cloud 2800' broken temp 14°C

PILOT: Commercial

TOTAL HOURS:	1392	ALL TYPES	35	ON TYPE
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LAST 90 DAYS:	45	ALL TYPES	40	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; Pass: 3 uninj.

OCCURRENCE: During a cross-wind landing, the pilot did not have his feet in the proper position for brake operation. After two or three bounces with no attempt to overshoot, a ground loop developed; one of the wheels contacted a crack in the runway and it collapsed under the aircraft. The pilot had limited experience on tail wheel aircraft.

83-A30027

Hawker Siddeley HS748-2A

C-GEPI

DATE: 22 Sep 1983 0830 ADT

OPERATION: Regular Specific Point

PLACE: Moncton Arpt NB 46/07N 64/41W

LOCALE: Paved runway 8000' by 200' 233' ASL

WEATHER: Not significant

PILOT: Airline transport

TOTAL HOURS:	8300	ALL TYPES	unknown	ON TYPE
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LAST 90 DAYS:	unknown	ALL TYPES	unknown	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 3 uninj; pass: 3 uninj.

OCCURRENCE: Following a normal approach and landing, vibration was felt through the aircraft. The first officer then saw the nosewheels rolling up the runway. The aircraft slid to a stop on the base of the nose oleo.

Examination of the failed parts revealed that the left bearing had seized due to the loss of bearing pre-load torque; this resulted from fatigue failure of the pre-load nut locking pin from normal service loads. This caused the axle to neck down and fail, resulting in the loss of the left wheel. Because both wheels were attached to the axle, this also resulted in the loss of the right wheel.

83-A30902

Air Tractor AT400

SU-BGB

DATE: 12 May 1983 1925 ADT

OPERATION: Private business

PLACE: Grand Lake NB 45/54N 66/02W

LOCALE: Lake water area at sea level

WEATHER: Wind NNE 18 Kt vis 4 cloud 700' OVC

PILOT: Airline Transport license

TOTAL HOURS:	7560	ALL TYPES	263	ON TYPE
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LAST 90 DAYS:	64	ALL TYPES	38	ON TYPE
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DAMAGE: Destroyed

CASUALTIES: Crew: 1 fatal.

OCCURRENCE: The aircraft was one of two being ferried from Wichita Falls, Texas to Cairo, Egypt. When approaching Fredericton, the pilots received forecasts indicating their destination, Moncton, had gone below VFR limits. They decided to file IFR and were given individual clearances. About 20 minutes later, Moncton Centre lost radar contact with SU-BGB. The aircraft had crashed in a high speed dive into Grand Lake. The investigation determined that the pilot had suffered a coronary insufficiency which incapacitated him to the extent that he was unable to control the aircraft. A full report is available on this accident.

83-A30904

Cessna U206G

N734ZZ

DATE: 29 Sep 1983 1740 ADT

OPERATION: Private recreation

PLACE: 2½ mi SE of South Branch Nf1 47/54N 58/59W

LOCALE: Mountainous area 1800' asl

WEATHER: Wind W 15G 25 kt vis 15+ cloud scattered temp 12°C

PILOT: Private

TOTAL HOURS:	372	ALL TYPES	51	ON TYPE
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LAST 90 DAYS:	142	ALL TYPES	48	ON TYPE
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DAMAGE: Destroyed

CASUALTIES: Crew: 1 serious; pass: 1 serious, 1 minor.

OCCURRENCE: The pilot was on a local sightseeing flight with his two passengers. He flew over one of their houses and then carried on through a deep valley.

When the aircraft came to the end of the valley, the pilot realized that he was surrounded by hills, the ground was rising and he was trapped. He attempted to fly over a saddle back, but could not outclimb the rising terrain; the floats clipped an out crop of rock, the aircraft went out of control, contacted a hill and came to rest inverted.

One of the passengers walked to a phone and reported the accident; he then returned to the site. The occupants were rescued the next morning.

The area where the accident occurred is subject to gusting winds with severe up and down drafts. The pilot had only recently received his float endorsement and was unaware of the climb capabilities of the aircraft under the prevailing conditions.

Although shoulder harnesses were available to the pilot and one front seat passenger, they were not used.

83-C30002

Bell 206A

C-FJAD

DATE: 7 Jan 1983 0240 CST

OPERATION: Other

PLACE: Clandeboye Man 50/14N 97/02W

LOCALE: Flat cultivated area

WEATHER: Not significant

PILOT: Commercial Rotorcraft - Lapsed

TOTAL HOURS:	130	ALL TYPES	Unknown	ON TYPE
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LAST 90 DAYS:	Unknown	ALL TYPES	Unknown	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 1 uninj.

OCCURRENCE: The pilot and his friend broke into the operator's premises and stole the helicopter. After departing from the closed airport, they flew 10-12 miles to the home of the pilot's sister. They "buzzed" the house several times, striking a hydro line during one of the low passes, then abandoned the aircraft in a field approximately 1 mile away.

Damage apparent at the scene was confined to the vertical fin, pitot tube, and chin bubble. Subsequent tear down revealed that the tailboom was bent, the rotor blades were destroyed due to out of limits scratching, and the engine compressor was scraped.

The pilot, who had never been licensed for night flying, was given a breathalyzer test and found to be impaired.

DATE: 14 Mar 1983 1224 MST

OPERATION: Charter

PLACE: La Ronge Sas 55/09N 105/16W

LOCALE: Grass strip 2800' by 100' 1241' asl

WEATHER: Wind SW 10 kt vis 15+ cloud scattered

PILOT: Airline Transport

TOTAL HOURS:	4200	ALL TYPES	50	ON TYPE
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LAST 90 DAYS:	35	ALL TYPES	15	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj.

OCCURRENCE: The left landing gear drive tube failed when the landing gear was retracted. A two wheel landing resulted and the left propeller and gear door were slightly damaged.

The drive tube had failed through progressive cracking of the rod end. The crack initiations were associated with coarse machining marks on the lubrication hole bore.

83-C30026

Bell 206B

C-FXSK

DATE: 27 Mar 1983 2100 CDT

OPERATION: Charter

PLACE: Camp Yelverton NWT 82/17N 82/38W

LOCALE: Frozen inlet at sea level

WEATHER: Wind SSE 17 kt vis 10 sky clear temp -35° C

PILOT: Commercial Rotorcraft

TOTAL HOURS:	1100	ALL TYPES	600	ON TYPE
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LAST 90 DAYS:	55	ALL TYPES	55	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 serious; pass: 1 uninj.

OCCURRENCE: The helicopter was engaged in transportation operations to various locations on a frozen inlet. The pilot had commenced a tear drop approach from 700 feet, and during the final stages of the descent, he sensed an uncommanded change in attitude and an increased rate of descent. Glancing inside the cockpit, he noted the engine rpm was low and that the auto re-ignition light was illuminated. Although the engine-out warning horn and light were not activated, the pilot elected to autorotate to the ice surface. During the autorotation flare, vertical descent was successfully arrested, however, the helicopter still had considerable forward speed when it impacted the sea ice. After the accident, the engine continued to run until shut down by the pilot

Post-accident examination of the engine and fuel control units did not reveal the cause of the reported engine malfunction.

83-C30027

Cessna 185

C-GWBS

DATE: 17 Mar 1983 1230 CST

OPERATION: Charter

PLACE: Brochet Man 57/54N 101/41W
 LOCALE: Snow-bordered ice runway
 WEATHER: Wind S 4 kt vis 15+ sky clear temp -17° C
 PILOT: Commercial

TOTAL HOURS:	1443	ALL TYPES	923	ON TYPE
LAST 90 DAYS:	101	ALL TYPES	101	ON TYPE

DAMAGE: Substantial
 CASUALTIES: Crew: 1 uninj; Pass: 2 uninj.
 OCCURRENCE: Following a short flight, the pilot set up to land on a snow-covered ice strip between a settlement and a winter road. The pilot stated that his passengers distracted him during the final approach with requests to fly over the community before landing. As a result, he landed long and fast; the aircraft overran the strip, struck a snowbank bordering the road, became airborne and impacted the opposite bank with enough force to collapse the left landing gear leg.

Had the pilot ignored the passengers or circled for them, there would have been no problem. He also could have landed on an unrestricted area beyond the road.

83-C30038 Volksplane WE1 CF-BGS

DATE: 7 May 1983 1100 CDT
 OPERATION: Private recreation
 PLACE: Oakbank Man 49/57N 96/51W
 LOCALE: Flat compact area
 WEATHER: Wind NE 9 kt vis 15 sky clear temp 2°C
 PILOT: Private

TOTAL HOURS:	1163	ALL TYPES	404	ON TYPE
LAST 90 DAYS:	6	ALL TYPES	1	ON TYPE

DAMAGE: Substantial
 CASUALTIES: Crew: 1 uninj.
 OCCURRENCE: While turning onto base leg, the engine of the homebuilt aircraft lost power. The application of carburettor heat did not resolve the problem. The pilot was forced to land on the shoulder of a road and the landing gear collapsed. The fuel metering needle of the carburettor type installed on the aircraft is apparently very sensitive, and the valve can move in-flight if it is not adequately torqued. The manufacturer recommends that 4 inch pounds be required to rotate a serviceable metering valve.

Post-accident examination determined the force required to rotate the metering valve was considerably less than specified. Rotation in the appropriate direction caused by vibration would result in a lean mixture and a loss of power.

The investigation concluded that this was the most probable cause of the accident.

DATE: 6 Jun 1983 1200 CDT

OPERATION: Charter

PLACE: Dasent Lake Ont 49/43N 90/36W

LOCALE: Lake water area 4000' by 2000' 1425' ASL

WEATHER: Wind NW 25G35 kt vis 13 sky broken

PILOT: Commercial licence

TOTAL HOURS:	3221	ALL TYPES	400	ON TYPE
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LAST 90 DAYS:	18	ALL TYPES	18	ON TYPE
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DAMAGE: Destroyed

CASUALTIES: Crew: 1 fatal; Pass: 4 fatal.

OCCURRENCE: The floatplane was observed on take-off and initial climb before it disappeared behind a point of land. Shortly after, it impacted the surface of the lake in a left wing low attitude with considerable slip to the left.

Reports describing the noises coming from the engine immediately before impact, are conflicting. Examination of the propeller indicated there was little or no power being developed at impact. Engine examination indicated it was capable of producing power at impact. (LP 233/83 refers).

The aircraft was fitted with an external fuel tank underneath the fuselage, but the log books and the weight and balance did not reflect this addition. An unapproved bench seat was installed in the center cabin area, and the aircraft had no visible means of load restraint.

The cause of the accident remains undetermined.

83-C30050

Cessna A188B

C-GARY

DATE: 9 Jun 1983 2055 MDT

OPERATION: Private spray

PLACE: Luseland Sas 52/05N 109/24W

LOCALE: Cultivated hills

WEATHER: Wind N 3 kt vis 15+ sky clear temp 21°C

PILOT: Commercial

TOTAL HOURS:	2400	ALL TYPES	220	ON TYPE
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LAST 90 DAYS:	120	ALL TYPES	20	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj.

OCCURRENCE: The pilot was taking off on a local agricultural spray flight. He reported that immediately after lift-off, the airspeed began to decrease and the aircraft would not climb. He decided to abort the take-off and landed in a cultivated field off the end of the runway. The aircraft ground looped, and the landing gear collapsed. The pilot speculated that wind shear at lift-off caused the loss of airspeed.

DATE: 12 Jun 1983 1318 CDT
OPERATION: Private business
PLACE: Winnipeg Int'l Arpt Man 49/55N 97/14W
LOCALE: Paved runway 11000' by 200' 783' asl
WEATHER: Wind S 4 kt vis 15+ sky clear temp 24°C
PILOT: Private

TOTAL HOURS:	7000	ALL TYPES	3000	ON TYPE
LAST 90 DAYS:	80	ALL TYPES	80	ON TYPE

DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj; Pass: 3 uninj.
OCCURRENCE: The pilot had made two refuelling stops without encountering any difficulty with the landing gear. While landing at destination, he noticed that the nose began to settle lower than normal on roll out. The pilot thought the nose gear may not have extended and applied power to raise the nose; on the next power reduction, the nose again dropped. The pilot applied power a second time and cycled the landing gear switch with the weight of the aircraft still partially on the main gear. He incorrectly assumed that this action would raise the gear slightly and then return it to a locked down position.

Had the machine been airborne, moving the gear to full retraction and then to full extension may well have positioned the gear down and locked. However, the momentary selection of the gear switch to the "up" position, caused the main gear to retract bringing the aircraft fuselage down onto the runway. It came to rest upright, sustaining additional damage due to the retraction of the main gear.

Investigation did not reveal any mechanical or electrical malfunction that could have caused the initial nose gear failure.

DATE: 17 Jun 1983 0848 MDT
OPERATION: Private application
PLACE: Swift Current Sas 50/18N 107/41W
LOCALE: Flat cultivated area
WEATHER: Wind SSE 17 kt vis 20 sky clear temp 15°C
PILOT: Commercial Licence

TOTAL HOURS:	5500	ALL TYPES	300	ON TYPE
LAST 90 DAYS:	250	ALL TYPES	30	ON TYPE

DAMAGE: Commercial licence
CASUALTIES: Crew: 1 uninj.
OCCURRENCE: As the pilot did not want the strong winds to lessen the effectiveness of his spraying operation, he elected to fly at a lower than normal altitude.

During his last swath run, he misjudged the vertical clearance and the left wheel of the aircraft contacted a pile of rocks. Not knowing the extent of the damage, the pilot flew to a nearby airport to check.

On landing, the left landing gear collapsed and the aircraft dropped onto the left wing tip.

83-C30053

Cessna 180

C-FIEA

DATE: 17 Jun 1983 1707 CST

OPERATION: Private training

PLACE: Saskatoon Sas 52/10N 106/42W

LOCALE: Paved runway 6200' by 200' 1653' asl

WEATHER: Wind S 17 G 24 kt vis 15+ sky broken

PILOT: Commercial

TOTAL HOURS:	520	ALL TYPES	200	ON TYPE
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LAST 90 DAYS:	9	ALL TYPES	9	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 1 uninj.

OCCURRENCE: The pilot was practising circuits. He reported that during a landing roll, he lost control of the aircraft. A gust of wind lifted the right wing, the left wing hit the runway and the machine groundlooped to the right; the left gear collapsed. The wind was reported as a 30 degree cross-wind from the right with gusts up to 24 knots. This was at maximum cross-wind limits for the aircraft.

83-C30054

Piper PA25-235

C-GYWW

DATE: 20 Jun 1983 1400 CDT

OPERATION: Specialty application

PLACE: Carberry Man 49/52N 99/22W

LOCALE: Flat grass-covered field 1342' asl

WEATHER: Wind NE 10 kt vis 15+ sky clear temp 28°C

PILOT: Commercial

TOTAL HOURS:	3000	ALL TYPES	12	ON TYPE
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LAST 90 DAYS:	50	ALL TYPES	12	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj.

OCCURRENCE: The pilot was practicing aerial spraying when the aircraft struck a single strand powerline. The wire contacted the landing gear assembly just above the tire and remained attached. The resulting drag prevented further flight, and the pilot made a forced landing in an adjacent field. He reported he had failed to ensure adequate clearance over the powerline.

83-C30057

Cessna 180J

C-GNKF

DATE: 25 Jun 1983 1130 CDT

OPERATION: Charter

PLACE: Sturgeon Lake Ont 50/12N 90/39W

LOCALE: Tree-covered hills

WEATHER: Wind WSW 20 G 25 kt vis 15+ sky clear temp 29°C

PILOT: Commercial licence
TOTAL HOURS: 1070 ALL TYPES 846 ON TYPE
LAST 90 DAYS: 143 ALL TYPES 143 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj; Pass: 2 uninj.
OCCURRENCE: Following take-off, the aircraft climbed rapidly when it encountered a strong gust of wind; it then collided into the trees.

83-C30058 Noorduyn UC64A C-FGTM

DATE: 24 Jun 1983 2000 CDT
OPERATION: Charter
PLACE: 5 mi s of Round Lake Ont 52/53N 91/22W
LOCALE: Tree-covered swampy area
WEATHER: Wind SW 8 kt vis 15+ cloud 6000' overcast temp 27°C
PILOT: Commercial
TOTAL HOURS: 2500 ALL TYPES 135 ON TYPE
LAST 90 DAYS: 15 ALL TYPES 15 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj.
OCCURRENCE: When the aircraft took off, the tank was nearly empty. The pilot climbed to his cruising altitude of 600-700 feet, and relaxed until the engine stopped. Assuming that a cylinder had failed, he set up for a forced landing into trees. By the time he realized he had run the tank dry, he was too low to switch tanks.

A simple check - fuel, mixture, switches - would have prevented this accident. Also, a higher cruising altitude would have afforded him more time to assess and react to the emergency.

83-C30059 de Havilland DHC-2 C-FMRN

DATE: 28 Jun 1983 0730 CDT
OPERATION: Charter
PLACE: Long Legged Lake Ont 50/46N 94/08W
LOCALE: Glassy lake water 1175' asl
WEATHER: Wind calm vis 15+ sky clear temp 12°C
PILOT: Commercial
TOTAL HOURS: 1550 ALL TYPES 300 ON TYPE
LAST 90 DAYS: 125 ALL TYPES 100 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj; pass: 3 uninj.
OCCURRENCE: Three passengers embarked for a short flight to a lake situated about 20 miles away. The take-off was normal until the aircraft reached about 100 feet agl - at this point, the engine failed. Glassy water conditions prevailed, and with no visual reference, the pilot misjudged his flare. The left float received the main force of the impact and the landing gear assembly separated from the fuselage. All four occupants escaped before the aircraft sank. Life jackets were available but not used and all four held onto the right float until rescued twenty minutes later.

The investigation did not reveal any technical malfunction that would account for the engine failure. However, since refuelling the day before, had the pilot flown all subsequent trips on the centre tank, it is conceivable that fuel would have been exhausted from this tank. Because the centre tank was selected, it is probable that the failure was due to fuel starvation.

Since there was little or no wind, the pilot, rather than taking off over open water, could have departed along the shoreline thereby providing visual reference.

83-C30061

Cessna 182A

C-FZNZ

DATE: 2 Jul 1983 1230 MST

OPERATION: Private recreation

PLACE: Candle Lake Sas 53/40N 105/20W

LOCALE: Grass runway 2400' by 25' 1800' ASL

WEATHER: Wind E 10 kt vis 15+ cloud 3000' broken temp 14°C

PILOT: Private licence

TOTAL HOURS:	400	ALL TYPES	385	ON TYPE
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LAST 90 DAYS:	10	ALL TYPES	10	ON TYPE
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DAMAGE: None

CASUALTIES: Crew: 1 uninj; Other Person: 1 fatal.

OCCURRENCE: While attempting to land at a private aerodrome, the pilot noticed a powered tricycle proceeding towards the aircraft. He began to overshoot, but just as the aircraft became airborne, the propeller struck the twelve year old operator of the vehicle.

The aerodrome was a vaguely defined area in a level, grass-covered field. It was unfenced and unsupervised, and there was little to distinguish it from an open meadow. It was routinely used by area residents, including children, for a variety of activities. The lack of control, and the apparent disregard for child safety shown by local parents, combined to create a dangerous situation - children were in fact playing on an active runway.

Evidence indicates the pilot's eyesight was such that he did not see the child and tricycle until it was too late. At the time of the accident, the pilot had not undergone a medical examination for four years and his license was invalid.

83-C30062

Cessna A185E

CF-DST

DATE: 5 Jul 1983 1030 CDT

OPERATION: Private recreation

PLACE: 7 miles N of Selkirk Man 50/11N 96/53W

LOCALE: River water area 750' asl

WEATHER: Wind SW 10G15 kt vis 15+ sky clear temp 25°C

PILOT: Private

TOTAL HOURS:	620	ALL TYPES	520	ON TYPE
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LAST 90 DAYS:	5	ALL TYPES	5	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 minor; pass: 1 uninj.

OCCURRENCE: The float-equipped aircraft was landing in gusting and variable cross-winds. The aircraft touched down hard on the right float and wing tip; the machine bounced then rolled, and the left wing impacted the water.

83-C30063

Cessna 180K

C-GYZJ

DATE: 7 Jul 1983 1250 MST

OPERATION: Private business

PLACE: 1a Ronge Sas 55/06N 105/17W

LOCALE: Lake water area

WEATHER: Wind E 11 kt vis 15+ cloud scattered

PILOT: Private

TOTAL HOURS:	583	ALL TYPES	16	ON TYPE
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LAST 90 DAYS:	52	ALL TYPES	16	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj;

OCCURRENCE: The pilot landed and step-taxied toward the dock. Although he reduced power, he misjudged the distance and the aircraft continued; it collided with the dock and a boat.

83-C30064

Piper J3C-65

C-GYGZ

DATE: 5 Jul 1983 1030 CDT

OPERATION: Specialty-training

PLACE: Gimli Man 50/38N 97/03W

LOCALE: Water area 2100' by 87' 750' asl

WEATHER: Wind S 4 kt vis 15+ sky clear temp 25°C

PILOT: Commercial licence

TOTAL HOURS:	1700	ALL TYPES	1	ON TYPE
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LAST 90 DAYS:	130	ALL TYPES	1	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 2 uninj.

OCCURRENCE: The instructor was preparing to give his student a flight check for a float endorsement. Although the take-off was from a restricted area, the instructor did not make full use of the available water run. There was a more suitable area available nearby.

The instructor reported that when he got the aircraft on the step, it seemed to stick and would not accelerate; he decided to abort and the aircraft overran the shoreline before stopping. The instructor had limited time on type, and in addition, there was a slight tailwind.

83-C30065

Piper J3-65

C-FDCQ

DATE: 7 Jul 1983 2000 CDT

OPERATION: Private recreation

PLACE: 3 miles W of Dryden Ont 49/50N 92/48W

LOCALE: Grass strip 800' by 50' 1350' asl

WEATHER: Wind calm vis 15 cloud scattered

PILOT: Private licence

TOTAL HOURS:	69	ALL TYPES	4	ON TYPE
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LAST 90 DAYS:	5	ALL TYPES	0	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj;

OCCURRENCE: After a normal landing the pilot applied brakes while the tail was still in the air; the aircraft nosed-over. The low-time pilot had trained on tricycle equipped aircraft and had very little experience with tail wheel operations. The situation was aggravated further by her unfamiliarity with the heel brakes on this aircraft.

On the rear seat, was a bag of sand restrained only by a lap belt. This posed a potentially dangerous situation; the ballast fell from the seat when the aircraft nosed-over.

83-C30066

Piper PA-16

C-FGNM

DATE: 7 Jul 1983 2130 EDT

OPERATION: Private recreation

PLACE: Armstrong Ont 50/17N 88/55W

LOCALE: Paved runway 3000' by 150' 1058' asl

WEATHER: Wind 8 kt vis 5 cloud 1500' overcast temp 18°C

PILOT: Private

TOTAL HOURS:	84	ALL TYPES	27	ON TYPE
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LAST 90 DAYS:	65	ALL TYPES	27	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; Pass: 2 uninj.

OCCURRENCE: The pilot reported that he bounced hard on the first landing attempt then the gear collapsed on the second landing. He also reported that a precrack in the gear was found at the failure point.

83-C30067

Piper PA25-235

C-GEFT

DATE: 10 Jul 1983 0530 CST

OPERATION: Specialty application

PLACE: Tisdale Sas 52/51N 104/03W

LOCALE: Flat cultivated area

WEATHER: Wind NW 7 kt vis 15+ sky broken

PILOT: Senior Commercial

TOTAL HOURS:	2460	ALL TYPES	1350	ON TYPE
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LAST 90 DAYS:	130	ALL TYPES	100	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj.

OCCURRENCE: The pilot had just completed a spray run and was entering the field for the second time. He had forgotten about the power line across the end of the field so to avoid a wire strike, he lowered the nose of the aircraft and flew beneath the line. He was unable to check the descent prior to striking the field. The aircraft bounced once then came down on a grid road bending the landing gear back.

Following the second impact, the aircraft became airborne again, but the pilot felt that it was not reacting normally. He shut down the engine and the aircraft settled onto a field. As the machine slid to a stop, the carburettor broke off at the mounting bolts allowing fuel to flow onto the hot exhaust. The post-crash fire consumed most of the fuselage.

83-C30068

Grumman CS2F

C-GEHQ

DATE: 11 Jul 1983 0930 MST

OPERATION: State

PLACE: Nr Buffalo Narrows Sas 56/03N 108/38W

LOCALE: Flat swamp area

WEATHER: Wind WSW 10 kt vis 15+ sky clear temp 18°C

PILOT: Airline Transport licence

TOTAL HOURS:	6000	ALL TYPES	600	ON TYPE
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LAST 90 DAYS:	30	ALL TYPES	30	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 serious.

OCCURRENCE: The pilot was enroute to base when the starboard engine failed; he feathered the propeller and shut down the engine. About 12 minutes later, the port engine also failed. He made a forced landing in a swamp area and collided with a stand of tall evergreens.

Technical examination revealed that the engines failed due to fuel exhaustion. As the fuel gauges were not calibrated accurately, they indicated an amount greater than was actually on board.

83-C30069

Cessna 310B

C-FZJW

DATE: 11 Jul 1983 1407 CDT

OPERATION: Specialty-inspection

PLACE: Dryden Ont 49/50N 92/45W

LOCALE: Paved runway 5400' by 150' 1353' asl

WEATHER: Wind SSW 17 G 28 kt vis 15 cloud 2800 overcast temp 17°C

PILOT: Commercial licence

TOTAL HOURS:	1008	ALL TYPES	65	ON TYPE
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LAST 90 DAYS:	135	ALL TYPES	65	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 1 uninj.

OCCURRENCE: The pilot was landing in a gusty 50 degree cross-wind. He reported that the gear was in the green before landing.

After touchdown and rolling a short distance, the right main and nose gear collapsed. The aircraft swerved to the right side of the runway. The pilot transmitted an emergency message, shut down the engines and safely evacuated the aircraft.

There were two possible reasons for the gear collapse:

- (1) the gear handle was selected up after touchdown, or
- (2) the gear was selected down just before touchdown and did not have time to go to the fully locked position.

The investigation did not reveal any malfunction of the gear locking system. The exception was the shock struts were a higher extension than recommended by the manufacturer. This may have helped to defeat the safety features of the squat switch.

Given the conditions, the runway the pilot selected exceeded the cross-wind limitations of the aircraft. An alternate, but shorter runway was available with only 10 degrees of crosswind.

83-C30071

Piper PA25

C-GBDS

DATE: 17 Jul 1983 0645 CDT

OPERATION: Specialty application

PLACE: Werenko Landing Ont 48/50N 93/10W

LOCALE: Gravel runway 1900' by 150' 1525' ASL

WEATHER: Wind NE 10 kt vis 15+ sky clear temp 17°C

PILOT: Commercial

TOTAL HOURS:	400	ALL TYPES	80	ON TYPE
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LAST 90 DAYS:	80	ALL TYPES	80	ON TYPE
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DAMAGE: Destroyed

CASUALTIES: Crew: 1 uninj.

OCCURRENCE: During the pre-flight ground run the engine lost all power each time the right magneto was turned off. Following advice, the pilot removed the grounding wire from both magnetos; this modification appeared to rectify the problem. After running the engine up to take-off power, the pilot was convinced everything was normal so he back-tracked down the runway and took off. During the climb-out, the engine suddenly began losing power so the pilot turned to regain the strip. During the turn the engine failed completely; the aircraft stalled, crashed and burned 1½ miles from the strip.

Removal of both magneto grounding wires effectively removed the magneto selector switch from the system. Both switches were now "live" regardless of the magneto switch selection; consequently the engine continued to run after the right magneto was switched off.

The loss of engine power following take-off was the result of a massive internal failure of the accessory gear drive train and was apparently unrelated to the ignition system modification.

83-C30074

Cessna 337G

C-GGBL

DATE: 19 Jul 1983 2035 MST

OPERATION: Private recreation

PLACE: Little Bear Lake Sas 54/20N 104/35W

LOCALE: Sand strip 2200' long 1300' asl

WEATHER: Wind calm vis 15+ sky clear temp 22°C

PILOT: Commercial licence

TOTAL HOURS:	1500	ALL TYPES	500	ON TYPE
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LAST 90 DAYS:	20	ALL TYPES	20	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 minor; Pass: 3 minor.

OCCURRENCE: The pilot applied throttle and achieved a maximum of 2600 rpm prior to brake release. At an indicated airspeed of 65 mph, he rotated the aircraft off the runway; he then lowered the nose to gain airspeed and initiated climb at 85 mph. The aircraft cleared short trees just past the end of the runway, but was unable to out-climb the rising terrain beyond. It crashed into tall trees.

Performance figures for take-off from sand are not available. Dry grass runway data indicates a required ground roll distance of 1092 feet, under the given conditions, with 2800 rpm set. Indicated airspeed at lift-off should have been 76 mph.

The aircraft lifted off about 1100 feet down the runway, but the reduced power setting resulted in the lower take-off speed. The pilot did not appreciate the extent to which a reduced lift-off speed can degrade initial climb performance. Had he consulted the Take-off Distance Performance Chart prior to departure, he would have been reminded of lift-off and climb speeds required to clear an obstacle within a given distance. This information is available in the Pilots Operating Handbook but is not included with the Maximum Performance Take-off Procedure.

83-C30075

Cessna 182Q

C-GQPU

DATE: 24 Jul 1983 1610 CDT

OPERATION: Private ferry

PLACE: 9 miles N of Churchbridge Sas 51/01N 101/49W

LOCALE: Grass strip 2600' by 75' 2000' ASL

WEATHER: Wind SE 10 kt vis 15+ sky clear temp 30°C

PILOT: Private licence

TOTAL HOURS:	1720	ALL TYPES	1300	ON TYPE
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LAST 90 DAYS:	unknown	ALL TYPES	1	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 minor.

OCCURRENCE: During a low level overflight of the destination aerodrome, the engine failed due to fuel exhaustion. The pilot carried out a forced landing on an adjacent field, and during the landing roll the aircraft nosed over inverted. The pilot had neglected to provide sufficient fuel for the 40 minute flight. A review of his piloting history indicated that he had little regard for regulations and procedures such as pre or in-flight planning.

83-C30076

Champion 11AC

C-FEPA

DATE: 25 Jul 1983 0900 CDT

OPERATION: Private recreation

PLACE: 6 miles S of Teulon Man 50/17N 97/16W

LOCALE: Grass Covered area 783' asl

WEATHER: Winds 5 kt vis 15 sky clear

PILOT: Private licence

TOTAL HOURS:	125	ALL TYPES	60	ON TYPE
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LAST 90 DAYS:	24	ALL TYPES	24	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 1 uninj.

OCCURRENCE: The pilot was taxiing to the end of the field to drop off a passenger. He reported that his attention was diverted and the left wing of the aircraft hit a fence post.

83-C30077

Champion 7GCAA

C-FXKB

DATE: 25 Jul 1983 2015 CST

OPERATION: Private recreation

PLACE: Carrot River Sas 53/17N 103/33W

LOCALE: Grass runway 3000' by 100' 1180' asl

WEATHER: Sky clear vis 15+

PILOT: Commercial licence

TOTAL HOURS:	350	ALL TYPES	170	ON TYPE
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LAST 90 DAYS:	40	ALL TYPES	10	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; Pass: 1 uninj.

OCCURRENCE: Although the pilot experienced no difficulty braking while taxiing for take-off, he reported the aircraft swung to the left on touchdown. He applied hard right brake to maintain directional control. The aircraft nosed over substantially damaging the wing spars, propeller, and rudder.

Although it could not be conclusively determined, it is probable that the left parking brake cable housing was loose at one end preventing release of hydraulic pressure. This would cause the wheel to lock with successive applications of the brake during the landing. More care in servicing could have detected the malfunction.

83-C30078

Cessna 150F

C-GSAM

DATE: 22 Jul 1983 0030 CDT

OPERATION: Private recreation

PLACE: 7 mi NW of Boissevain Man 49/26N 100/08W

LOCALE: Rolling cultivated area 1620' asl

WEATHER: Wind calm vis 15+ sky clear temp 15°C

PILOT: Private licence

TOTAL HOURS:	1600	ALL TYPES	200	ON TYPE
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LAST 90 DAYS:	60	ALL TYPES	4	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 serious; pass: 1 serious

OCCURRENCE: While the pilot was practising circuits at night, the aircraft descended into slightly rising terrain. The pilot stated that he believed the aircraft altimeter was not accurate so he carried a spare on the flight; both altimeters were reading the same after the accident. The pilot also stated that he could not remember what had taken place during the accident.

The surrounding grid roads were light colored patches in the moonlight, and the sunflower field where the accident took place was dark.

83-C30079

Cessna 172P

C-GMUQ

DATE: 22 Jul 1983 1145 CDT

OPERATION: Charter

PLACE: 2 mi W of Moline Man 50/11N 100/11W

LOCALE: Rolling gravel road 1682' asl

WEATHER: Wind W 15 kt vis 15+ sky clear temp 22°C

PILOT: Private

TOTAL HOURS:	48	ALL TYPES	48	ON TYPE
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LAST 90 DAYS:	1	ALL TYPES	1	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 3 uninj.

OCCURRENCE: The pilot took off from a nearby airport and flew over his farm property to take some pictures. He ran out of film and decided to land on a roadway near his home to pick up some more.

Shortly after touchdown, the pilot reported that the nose gear encountered loose gravel, causing the aircraft to veer left. The left main gear hit some tall vegetation and the aircraft went into a ditch.

83-C30081

Piper PA32RT-300T

C-GJDS

DATE: 27 Jul 1983 1130 CDT

OPERATION: Private recreation

PLACE: 8 miles S of Strathclair Man 50/14N 100/24W

LOCALE: Flat cultivated area

WEATHER: Wind SW 5 KT vis 15+ sky clear temp 28°C

PILOT: Private licence

TOTAL HOURS:	3860	ALL TYPES	2000	ON TYPE
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LAST 90 DAYS:	110	ALL TYPES	108	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj

OCCURRENCE: During the take-off run the nose gear collapsed. A bushing in the overcentre lock mechanism became worn which allowed the gear to release from the overcentre lock position. The lock then failed in overload (LP 315/83).

83-C30082

Piper PA28-140

C-GFZG

DATE: 27 Jul 1983 1150 MST

OPERATION: Private business

PLACE: Saskatoon Sas 52/10N 106/42W

LOCALE: Flat cultivated area on airport 1653' asl

WEATHER: Wind NNE 19 kt vis 15 cloud 6000 scattered temp 22°C

PILOT: Private
TOTAL HOURS: 120 ALL TYPES 43 ON TYPE
LAST 90 DAYS: 3 ALL TYPES 3 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 fatal; pass: 1 serious
OCCURRENCE: While landing, at a height of 5 to 10 feet above the runway, the pilot applied power and initiated a climbing right turn to overshoot; the aircraft stalled and descended in a near vertical attitude. There was a 40 to 50 degree cross-wind from the left at 10 to 20 knots.

In May 1982, the pilot (flying the same aircraft) was involved in a cross-wind landing accident. The pilot had flown only 3.5 hours within the 90 days before that accident. The two contributing factors cited were improper cross-wind landing technique and lack of pilot proficiency. Aircraft damage had been costly and he was not able to use the aircraft for more than 9 months.

As in the previous accident, the pilot was not proficient. It is likely that, with the former accident in mind, he over-reacted to the cross-wind condition and allowed the aircraft to stall during the overshoot.

83-C30083

Piper PA28-180

C-GJAC

DATE: 6 Aug 1983 1645 CST
OPERATION: Private recreation
PLACE: Mayfair Sas 53/57N 107/27W
LOCALE: Flat grass-covered area 1500'
WEATHER: Wind calm vis 15+ sky clear temp 33°C
PILOT: Private

TOTAL HOURS: 76 ALL TYPES 67 ON TYPE
LAST 90 DAYS: 42 ALL TYPES 41 ON TYPE
DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; Pass: 1 minor 1 uninj.

OCCURRENCE: On a very hot day with calm winds, the pilot was planning to take off from a grass strip.

He reported that he calculated the machine could become airborne with a run of 1000 feet; this would leave 500 additional feet. In addition, he planned to use a short field take-off technique, which necessitated setting flaps at 25 degrees.

On the take-off run, he reported that the aircraft accelerated satisfactorily with lift-off occurring around 70 mph. After becoming airborne, however, the aircraft was unable to accelerate to a safe climb speed and it remained at about 10/15 feet agl. When about 600 feet beyond the strip, it struck a brush pile, swung around and slid to a stop.

The performance of this aircraft (which has a laminar flow wing) is very critical at low airspeeds during take-off and landing. Thus, a high degree of pilot skill and experience is required for safe flight.

The available evidence would indicate that after lift-off the aircraft remained on the back side of the power curve and hence was unable to accelerate.

83-C30084

Schweizer SGS 1-26B

C-FPPM

DATE: 7 Aug 1983 1416 CDT

OPERATION: Private recreation

PLACE: Pigeon Lake Man 49/58N 97/40W

LOCALE: Grass-covered strip 3000' by 100'

WEATHER: Wind NNW 7 kt vis 15 sky clear temp 30°C

PILOT: Glider licence

TOTAL HOURS:	33	ALL TYPES	3	ON TYPE
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LAST 90 DAYS:	3	ALL TYPES	3	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj.

OCCURRENCE: The glider stalled on final and settled into trees. The undershoot occurred when the pilot lost too much altitude in the circuit and on approach; this in turn resulted from misuse of the spoilers.

83-C30085

DeHavilland DHC-2

C-GGKA

DATE: 5 Aug 1983 1555 CDT

OPERATION: Charter

PLACE: Hayes River Man 57/03N 92/12W

LOCALE: River water area

WEATHER: Wind W 8 kt vis 15 cloud 4500' temp 18°C

PILOT: Airline Transport

TOTAL HOURS:	2150	ALL TYPES	77	ON TYPE
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LAST 90 DAYS:	90	ALL TYPES	77	ON TYPE
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DAMAGE: None

CASUALTIES: Crew: 1 uninj; pass: 1 serious 4 uninj.

OCCURRENCE: The pilot was taxiing to shore when the front seat passenger stepped out onto the right float; she was intending to throw a rope to men waiting to assist with beaching the aircraft. As she moved forward, with her back to the fuselage, the propeller severed her left hand. She fell into the water but remained conscious and held onto the aircraft until assisted to shore. She was not wearing a life-jacket.

The control exercised over the activities of the passengers prior to and during the flight was less than adequate. Even though four of the five passengers were unfamiliar with small aircraft operations, they still weren't briefed on emergency exits or survival equipment. During the 45 minute flight, the passenger consumed two bottles of beer after receiving permission from the pilot. The pilot did not restrict her exit or provide a briefing as he assumed she knew what she was doing.

Many employees of the federal government (for which the passengers worked) spend time in remote areas and are exposed to this type of flying operation. In some cases "assistance with aircraft operations" is included in the employee's job description. However, at the time of the accident, the department provided no related training to employees.

While there is no indication that the passenger was intoxicated, it is possible that stress and alcohol consumption may have affected her judgement.

83-C30086

DeHavilland DHC-2

CF-DOX

DATE: 9 Aug 1983 1455 CDT

OPERATION: Charter

PLACE: near Embleton Lake Man 57/15N 95/30W

LOCALE: Lake water area 5000' by 5000' 740' ASL

WEATHER: Wind SW 13 KT vis 5 cloud 1000' OVC with rain showers

PILOT: Commercial

TOTAL HOURS:	4000	ALL TYPES	500	ON TYPE
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LAST 90 DAYS:	100	ALL TYPES	100	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 1 uninj

OCCURRENCE: The pilot and engineer/passenger were proceeding to an outpost camp to do some fishing. Just before landing they experienced an electrical failure. The next morning they could not trace the problem and decided to return to their main base for repairs. While en route, poor weather was encountered and they were forced to return to the outpost camp. Just after turning back, smoke started to come from under the instrument panel and a short time later, flames were seen coming from under the lower engine cowling. A successful forced landing was carried out and the aircraft was taxied to shore. The aircraft was entirely consumed by fire with the exception of the wing tips and tail section. As a consequence the investigation was unable to determine the cause.

83-C30087

Stinson 108-1

CF-AIS

DATE: 5 Aug 1983 1130 CDT

OPERATION: Private ferry

PLACE: Gypsumville Man 51/40N 98/44W

LOCALE: Rolling tree-covered area 867' asl

WEATHER: Wind N 5kt vis 15+ sky clear temp 27°C

PILOT: Private licence

TOTAL HOURS:	105	ALL TYPES	6	ON TYPE
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LAST 90 DAYS:	7	ALL TYPES	4	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj.

OCCURRENCE: The pilot was in cruise flight when the engine began to sputter. He selected the right tank and turned towards an airport he had just overflown. On the approach he closed the throttle to lose

height, and at 300 feet AGL, he advanced the throttle to check his descent but the engine failed to respond. The aircraft struck trees 500 feet short of the threshold. The fuel tanks were checked and it was found that the left tank was dry and the right contained a small quantity of fuel.

Examination of the wreckage revealed staining extending rearward from both fuel caps. It is suspected that fuel had siphoned overboard.

83-C30088

Piper PA18-150

C-FOJP

DATE: 12 Aug 1983 1945 CST

OPERATION: Private business

PLACE: 1 mi SW of Perpete Lake Sas 57/19N 106/12W

LOCALE: Lake water area

WEATHER: Line squall and rain

PILOT: Private licence

TOTAL HOURS:	1600	ALL TYPES	1200	ON TYPE
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LAST 90 DAYS:	30	ALL TYPES	30	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj.

OCCURRENCE: The pilot of the float-equipped aircraft was attempting a precautionary landing due to a line squall. A float and wing tip dug into the water and the aircraft came to rest inverted. The machine drifted to shore where the pilot sat for about 36 hours before turning on his ELT. Armed Forces Personnel rescued him three and one half hours later.

83-C30089

Cessna U206

C-FAQH

DATE: 14 Aug 1983 1645 CDT

OPERATION: Private business

PLACE: Norway House Man 53/57N 97/51W

LOCALE: Gravel runway 4000' by 100' 730' asl

WEATHER: Wind W 14G27 kt vis 15+ sky clear temp 26°C

PILOT: Private

TOTAL HOURS:	170	ALL TYPES	130	ON TYPE
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LAST 90 DAYS:	35	ALL TYPES	35	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; Pass: 3 uninj.

OCCURRENCE: After touchdown in a strong gusting cross-wind, the aircraft became airborne. Before the pilot could recover, the aircraft settled down hard collapsing the nose gear. The cross-wind conditions exceeded the recommended limits for the aircraft.

83-C30090

Acro Sport (homebuilt)

C-GRGM

DATE: 14 Aug 1983 2050 EDT

OPERATION: Private recreation

PLACE: Kakabeka Falls Ont 48/25N 89/36W
LOCALE: Rolling tree-covered area 823' asl
WEATHER: Wind calm vis 15 sky clear temp 22°C

PILOT: Private

TOTAL HOURS:	3500	ALL TYPES	10	ON TYPE
LAST 90 DAYS:	5	ALL TYPES	5	ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 serious

OCCURRENCE: About 15 minutes after take-off on a local flight, the engine failed. The pilot attempted to glide into a farm field, but could not reach it. The aircraft crashed into a large stand of poplar trees about 820 feet short of the intended landing area.

No usable fuel was found at the accident site and before this flight, the aircraft had flown one hour and 45 minutes without being refuelled. The fuel capacity is 20 gallons and the engine consumes about 10 gallons per hour; therefore, aircraft endurance is about 2 hours. It was determined the engine failed due to fuel exhaustion.

The pilot stated that on his pre-flight check, the fuel level on the sight gauge indicated about 9 gallons. The gauge was calibrated with the tail raised to the level attitude, and thus did not give proper readings with the aircraft on the ground in the normal tail low position. The pilot was not aware of fuel gauge limitations.

The pilot did not have a valid licence as he hadn't undergone a medical examination for more than 2 years. His age required him to have a medical annually.

83-C30091

Stolp Acroduster II

C-GRZC

DATE: 13 Aug 1983 0900 CST

OPERATION: Private recreation

PLACE: 10 mi NW of Mossbank Sas 50/00N 106/08W

LOCALE: Flat farm strip 2300' ASL

WEATHER: Wind WNW light vis 20 sky clear temp 18°C

PILOT: Private

TOTAL HOURS:	500	ALL TYPES	150	ON TYPE
LAST 90 DAYS:	25	ALL TYPES	13	ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj

OCCURRENCE: The pilot was landing at his private farm strip. He reported that to increase his forward visibility he side slipped on the latter stages of the approach. The aircraft landed to the left side of the strip and the lower left wing hit some tall weeds; the machine ground looped to the left through 90 degrees. There was a slight cross-wind from the right which could have aggravated the situation.

83-C30092

Beech 95B55

C-GEFX

DATE: 16 Aug 1983 1704 CDT

OPERATION: Charter

PLACE: Thompson Man 55/45N 97/52W

LOCALE: Paved runway 5800' by 100' 716' ASL

WEATHER: Wind NE 13 KT vis 20 cloud 10 000 SCT temp 18°C

PILOT: Airline Transport

TOTAL HOURS: 2235 ALL TYPES 1165 ON TYPE

LAST 90 DAYS: 243 ALL TYPES 85 ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 3 uninj.

OCCURRENCE: During the take-off run, the nose gear collapsed. The forward nose gear retract link rod assembly failed under tension. The braze filler metal that holds the rod end fitting in place, contained large quantities of lead and did not meet the manufacturer's specifications. This resulted in the insert joint being much weaker than if the proper braze filler metal had been used. There was no evidence of any repairs anywhere in the link rod assembly; therefore the improper braze filler material must have been used during the original fabrication of the rod assembly (LP 314/83)

83-C30093

Bellanca 7GCBC

C-GOCL

DATE: 17 Aug 1983 1900 CDT

OPERATION: Specialty recreation

PLACE: Perch Lake Ont 48/45N 91/51W

LOCALE: Lake water area 5000' by 2000' 1535' ASL

WEATHER: Wind WSW 4 KT vis 15+ sky clear temp 26°C

PILOT: Private

TOTAL HOURS: 106 ALL TYPES 6 ON TYPE

LAST 90 DAYS: 17 ALL TYPES 3 ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 2 uninj.

OCCURRENCE: Shortly after take-off and at about tree top height, the pilot reportedly started climbing to the right. The aircraft stalled, the nose dropped, and the right float struck the water. Although both floats were damaged, the aircraft remained upright.

83-C30094

Cessna 152

C-GQQA

DATE: 19 Aug 1983 1630 MST

OPERATION: Specialty training

PLACE: Prince Albert Arpt Sas 53/13N 105/40W

LOCALE: Paved runway 5000, by 200' 1405' ASL

WEATHER: Wind WNW 10 KT vis 20+ cloud SCT temp 20°C

PILOT: Private

TOTAL HOURS: 59 ALL TYPES 46 ON TYPE

LAST 90 DAYS: 4 ALL TYPES 2 ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj

OCCURRENCE: During a training flight, the pilot was forced to return to the airport when she felt nauseous. The first approach was high so she elected to complete a missed approach; on the second approach, the aircraft bounced twice. It finally came to rest after the nose landing gear failed.

It is possible that turbulent conditions, combined with strong fumes from a local pulp mill, resulted in the pilot's nausea. This in turn severely reduced her ability to land the airplane.

83-H30003

Bell 206B

C-FDOJ

DATE: 17 Mar 1983 1130 EST

OPERATION: State

PLACE: Walton Island Ont 45/22N 80/19W

LOCALE: Rocky hills 580' asl

WEATHER: Wind calm vis 8 cloud 2500 obscured temp 2°C

PILOT: Commercial licence

TOTAL HOURS:	6820	ALL TYPES	2564	ON TYPE
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LAST 90 DAYS:	Unknown	ALL TYPES	Unknown	ON TYPE
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CASUALTIES: Crew: 1 minor; pass: 1 minor.

OCCURRENCE: As the rear of the skids touched the ground, the pilot heard a loud bang and felt the tail of the helicopter start to rise uncontrollably. He was unable to arrest the movement and the tail continued to rise to an almost vertical position; the aircraft swung to the left on its nose and fell to the ground on its left side. Both occupants were able to exit through the pilot's door.

It was found that the "A" frame pad had failed resulting in loss of cyclic and collective control. The nuts on the forward "A" frame pad had backed off because they were installed with insufficient torque.

A full report is available for this accident.

83-H30004

Canadair CL-600 Challenger

C-GBKC

DATE: 31 Mar 1983 1210 EST

OPERATION: State

PLACE: Ottawa Int'l Arpt Ont 45/19N 75/40W

LOCALE: During approach

WEATHER: Wind variable vis 25 cloud scattered above 1000' temp. 0°

PILOT: Airline transport

TOTAL HOURS:	11000	ALL TYPES	370	ON TYPE
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LAST 90 DAYS:	89	ALL TYPES	73	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 4 uninj.

OCCURRENCE: On final approach, approximately 6 miles from the threshold of runway 32 at Ottawa, the pilot called for flap 45. Before the flaps had fully extended, a bang was heard and the aircraft began to roll to the left.

The pilot applied power, right rudder, full right aileron and called for flaps up. When the flaps retracted, the uncommanded left roll stopped. A missed approach was executed followed by a flaps up landing. The temporary upset was due to separation of the left flap vane after its support rods failed.

A full report on this accident is available.

83-030020

Cessna 172K

C-FYOK

DATE: 3 Apr 1983 1800 EST

OPERATION: Private recreation

PLACE: 5½ miles S of Creemore Ont 44/15N 80/08W

LOCALE: Tree-covered hills 1711 asl

WEATHER: Wind E 8 kt vis 0 in fog sky obscured temp 4°C

PILOT: Private licence

TOTAL HOURS:	177	ALL TYPES	83	ON TYPE
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LAST 90 DAYS:	10	ALL TYPES	10	ON TYPE
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DAMAGE: Destroyed

CASUALTIES: Crew: 1 fatal; Pass: 1 fatal.

OCCURRENCE: An inexperienced pilot departed with his wife after checking the weather by phone. The pilot, rated below average by his instructor, insisted on flying home despite the predicted marginal VFR conditions, especially over the rising terrain along his route. A commercial pilot who knew the pilot's limitations, assessed the conditions as poor for VFR flight, and recommended the trip be postponed until the weather improved. The aircraft crashed into some trees in near level flight. It was reported clouds were touching the hills where the accident occurred. The search initiation and discovery were delayed as the pilot did not flight plan or carry an ELT.

Forensic investigation revealed that the pilot had taken heavy doses of both an anti-depressant and a tranquilizer - this combination would produce slowed responses, drowsiness, dizziness and lack of coordination. For almost 20 years the pilot had been undergoing treatment for a chronic personality disorder. Information on his mental condition and extensive use of drugs was apparently not available to the DOT medical officer.

83-030021

Maule M5-235C

C-GXII

DATE: 24 Jul 1983 1100 EST

OPERATION: Private business

PLACE: Lake McFadden Ont 45/20N 78/51W

LOCALE: Lake water area 1390' asl

WEATHER: Wind N 10G20 kt vis 15 cloud 4000' BKN temp 24°C

PILOT: Airline Transport

TOTAL HOURS:	4000	ALL TYPES	30	ON TYPE
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LAST 90 DAYS:	75	ALL TYPES	30	ON TYPE
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DAMAGE: Destroyed

CASUALTIES: Crew: 1 minor; pass: 1 serious, 1 minor

OCCURRENCE: After a full flap take-off, the pilot claimed that he let the airspeed build up to 80 mph before retracting the flaps and climbing to 300 ft. He further stated that the aircraft began to mush so he turned down wind over the lake in order to get more altitude for recovery. The recovery was not completed, and the aircraft struck the water in a steep nose-down attitude.

From a witness description, it appears the maximum altitude attained was about 110 ft. It was suspected that the pilot let the aircraft stall at an altitude too low for recovery.

83-030032

Quickie (Homebuilt)

C-GDUD

DATE: 17 May 1983 1350 EDT

OPERATION: Private test

PLACE: Tillsonburg Ont 42/56N 80/45W

LOCALE: Flat ploughed field 885' asl

WEATHER: Wind NNW 7 kt vis 15+ cloud 5500' SCT temp 10°C

PILOT: Private

TOTAL HOURS:	279	ALL TYPES	1	ON TYPE
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LAST 90 DAYS:	1	ALL TYPES	0	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 minor

OCCURRENCE: After lift-off, the aircraft failed to climb due to lack of acceleration. As it turned back toward the departure runway, it stalled and crashed in a rough ploughed field.

The engine provided only marginal power and the maximum gross weight was slightly exceeded. The aileron droop was increased in an attempt to correct a tail-down flight attitude.

83-030036

Cessna 172N

C-GBRS

DATE: 3 Jun 1983 1230 EDT

OPERATION: Private training

PLACE: Matchedash Lake Ont 44/47N 79/29W

LOCALE: Lake water area 10000' by 1000' 700' asl

WEATHER: Wind SSW 13 kt vis 15 cloud 4500' scattered temp 22°C

PILOT: Tourist permit - Austrian Commercial

TOTAL HOURS:	1800	ALL TYPES	15	ON TYPE
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LAST 90 DAYS:	150	ALL TYPES	6	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj.

OCCURRENCE: The pilot had just finished the minimum training required for a float endorsement. He completed one practise landing and take-off, and on the second landing, he reported that a gust of wind lifted the right wing and the left wing hit the water; the aircraft nosed-over and sank.

The lake has sufficient length for landing manoeuvres and is aligned from east to west. It is about 1000 feet wide and surrounded by a tree-covered rocky shoreline. Given these factors

(along with the wind estimated from SSW at 13 kts and his landing in an easterly direction), a high degree of pilot proficiency would be required to carry out a successful landing.

83-030039

PZL-104 Wilga 80

C-FARM

DATE: 13 Jun 1983 2030 EDT

OPERATION: Specialty application

PLACE: Westmeath Ont 45/49N 76/53W

LOCALE: Flat cultivated area 520' asl

WEATHER: Wind WNW 3 kt vis 5 cloud scattered temp 28°C

PILOT: Commercial

TOTAL HOURS:	8200	ALL TYPES	61	ON TYPE
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LAST 90 DAYS:	20	ALL TYPES	4	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj.

OCCURRENCE: The aircraft engine failed during a low altitude spray run. With airspeed decreasing, the pilot pulled up to avoid some bushes and restarted the engine. The aircraft struck the ground in a right wing low attitude and overturned.

Prior to flight, the pilot was aware the left fuel tank contained 18 gallons of fuel and the right tank only 8 gallons. He took off with the right tank selected. It was his intention to set the fuel selector to the left tank at the commencement of the spray run, but he forgot to do so. The engine failed during his final spray run when the fuel supply from the right tank was depleted. The pilot moved the fuel selector to the left tank and the engine began to develop power, but due to the aircraft's nose high attitude, low airspeed and low altitude, he was unable to regain control before it struck the ground.

83-030040

Cessna 172M

C-GEEM

DATE: 18 Jun 1983 1930 EDT

OPERATION: Private recreation

PLACE: Lucan Arpt Ont 43/10N 81/25W

LOCALE: Grass runway 3200' by 100' 690' asl

WEATHER: Wind NW 8 kt vis 15 cloud scattered temp 22°C

PILOT: Private

TOTAL HOURS:	68	ALL TYPES	11	ON TYPE
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LAST 90 DAYS:	5	ALL TYPES	5	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 3 uninj.

OCCURRENCE: A limited experience pilot corrected for a cross-wind while on approach to the grass strip. Just as he flared, the cross-wind ceased. He felt he was unable to correct for the wind change and also continue with the flare.

The nose dropped, and the aircraft hit hard, breaking the nose gear yoke and fairing, and bending the prop tips.

DATE: 17 Jun 1983 2200 EDT

OPERATION: Specialty recreation

PLACE: 5 mi NW of Muskoka Arpt Ont 44/59N 79/20W

LOCALE: Rolling grass-covered area 925' asl

WEATHER: Wind NW 8 kt vis 15 cloud scattered temp 14°C

PILOT: Commercial licence

TOTAL HOURS:	493	ALL TYPES	Unknown	ON TYPE
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LAST 90 DAYS:	1	ALL TYPES	1	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 serious

OCCURRENCE: The pilot was on a local VFR flight at night, when the engine suddenly stopped without warning. Efforts to restart it were unsuccessful, and a forced approach was carried out towards a dark area in the countryside. The aircraft struck a wire fence just prior to touching down in a field of tall grass; it came to rest inverted.

Examination of the engine and fuel system failed to determine the reason for the reported engine failure.

83-030044

Bell 206B

C-GEAS

DATE: 20 Jun 1983 1450 EDT

OPERATION: Charter

PLACE: Coppercliff Ont 46/28N 81/03W

LOCALE: Rocky hills

WEATHER: Wind W 6 kt vis 25 sky clear temp 29°C

PILOT: Commercial

TOTAL HOURS:	15500	ALL TYPES	8000	ON TYPE
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LAST 90 DAYS:	175	ALL TYPES	175	ON TYPE
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DAMAGE: None

CASUALTIES: Crew: 1 uninj; other (ground): 2 serious.

OCCURRENCE: The helicopter pilot was involved in slinging operations and was directed to pick up a load in a 12 foot square rope net. Approaching the load, the pilot observed someone other than his usual assistant holding up the sling ring. As he entered a hover over the load, he saw his usual assistant run under the aircraft. Both men were now out of view, beneath the helicopter. After waiting a few seconds, the pilot climbed, then flew to the drop site which was approximately 1000 feet away. While over the site, he jettisoned the load from 35 feet agl.

Unknown to the pilot, both men got entangled in the net and were transported to the drop site. When the net was dropped they fell to the ground and were seriously injured.

No ground signallers were employed in this operation. Had there been a marshaller in full view of the pilot, this accident would not have happened. Other factors which

contributed were the over-zealousness of an employee not authorised to perform the hook-up, and the speed at which the operation was conducted.

83-030048

Bellanca 8GCBC

C-GDVi

DATE: 5 Jul 1983 1915 EDT

OPERATION: Private recreation

PLACE: Brockville Ont 44/38N 75/45W

LOCALE: Paved runway 3516' by 90' 396' asl

WEATHER: Wind NNW 10 kt vis 8 cloud 3500' broken temp 23°C

PILOT: Private

TOTAL HOURS:	188	ALL TYPES	24	ON TYPE
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LAST 90 DAYS:	8	ALL TYPES	8	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj.

OCCURRENCE: Upon landing, the right main landing gear collapsed. The investigation determined the undercarriage attachment bolts had failed due to excessive loads. No evidence of any pre-existing damage that might have contributed to the failure was found. A failure of this type is consistent with loads generated during a hard landing or a ground loop.

83-030061

Quickie 2

C-GJPM

DATE: 27 Jul 1983 1040 EDT

OPERATION: Private training

PLACE: Hamilton Arpt Ont 43/10N 79/57W

LOCALE: Paved runway 6000' by 150' 776' asl

WEATHER: Wind W 7 kt vis 15 cloud 25000' scattered temp 25°C

PILOT: Private

TOTAL HOURS:	137	ALL TYPES	1	ON TYPE
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LAST 90 DAYS:	11	ALL TYPES	1	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj.

OCCURRENCE: The pilot was on his initial flight. He had received a verbal briefing from an experienced pilot but no dual instruction. After completing upper air work, he returned for landing. It was his intention to conduct two low passes over the longer runway to increase his familiarity of handling characteristics.

The controller advised that the shorter active runway was available for low passes, but if the longer runway was required, a full stop landing would be necessary. The pilot decided to use the longer runway and accept a full stop landing.

The approach was normal until the flare when the pilot cut the power to idle. The aircraft then sank rapidly to the runway, the propeller struck the surface and the engine stalled. The aircraft bounced and then touched down with one wing low. The pilot controlled the roll and managed to touch down near the edge of the runway. The aircraft struck a runway light, travelled about 300 feet, and came to rest about 20 feet from the edge.

The aircraft is one of the new canard high performance homebuilts. It requires a power-on landing technique since there are no wing flaps. The pre-flight briefing included this item.

It is possible the pilot's chances of landing safely would have been better had he completed the planned low passes. However, he apparently assumed he had to follow the controller's instructions and did not consider delaying his approach until such time that low passes would be approved.

The tower controller was apparently willing to allow low passes on the active runway but such a request was not made.

83-030064

Piper PA24-250

C-FNVO

DATE: 2 Aug 1983 1335 EDT

OPERATION: Private business

PLACE: Lindsay Ont 44/22N 78/47W

LOCALE: Paved runway 3000' by 75' 882' asl

WEATHER: Wind NNW 10 G 17 kt vis 15 cloud 28000' scattered temp 26°C

PILOT: Private

TOTAL HOURS:	102	ALL TYPES	56	ON TYPE
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LAST 90 DAYS:	19	ALL TYPES	19	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 1 uninj.

OCCURRENCE: The flight arrived over the destination airport at Lindsay; the pilot flew a full circuit with intentions of landing on runway 31.

The pilot reported that on the final stages of the approach, the aircraft sank rapidly and before he could recover, it landed heavily about 8 feet short of the runway.

The right landing gear was driven up and back by the impact and the top swivel attachment failed. The aircraft travelled a further 880 feet before coming to rest just off to the left of the runway.

Before commencing the flight, the pilot had checked the weather and filed a VFR flight plan by telephone. He had not, however, checked on the current NOTAMs which indicated that the airport had closed 2 weeks earlier due to runway construction. This restriction was clearly identified by large white "x"s on the approach end to Runway 31.

The pilot, landing at an unfamiliar airport, encountered gusting winds and misjudged the touchdown.

83-030065

Piper PA23-250F

C-GPQA

DATE: 4 Aug 1983 1523 EDT

OPERATION: Private training

PLACE: Chapleau Arpt Ont 47/49N 83/21W
 LOCALE: Paved runway 3000' by 75' 1465' asl
 WEATHER: Wind ENE 6 kt vis 10 cloud 1200' broken temp 19°C
 PILOT: Private licence
 TOTAL HOURS: 2187 ALL TYPES 448 ON TYPE
 LAST 90 DAYS: 20 ALL TYPES 14 ON TYPE
 DAMAGE: Substantial
 CASUALTIES: Crew: 1 uninj; pass: 1 uninj.
 OCCURRENCE: During a touch-and-go landing, the pilot raised the gear instead of the flaps.

83-Ø30067 Mustang (Homebuilt) C-GBRG

DATE: 7 Aug 1983 1200 EDT
 OPERATION: Private recreation
 PLACE: Brampton Arpt Ont 43/46N 79/53W
 LOCALE: Flat corn field 905' ASL
 WEATHER: Wind ESE 5 kt vis 15 cloud 4200' SCT temp 29°C
 PILOT: Private
 TOTAL HOURS: 405 ALL TYPES 5 ON TYPE
 LAST 90 DAYS: 5 ALL TYPES 0 ON TYPE
 DAMAGE: Substantial
 CASUALTIES: Crew: 1 uninj.
 OCCURRENCE: The pilot was planning a local VFR flight. He reported that after becoming airborne, the aircraft felt "sluggish" and "mushy" and would not accelerate properly. He closed the throttle and landed straight ahead in a cornfield; after touchdown, the aircraft cartwheeled 180 degrees and came to rest about 700 feet from the end of the runway.

The pilot reported that during the run-up, care had to be taken to ensure the limit switches from full coarse to full fine were not overrun; otherwise, the drive motor would stall. In addition, the brakes would not hold at full power so he was unable to thoroughly check out the propeller system.

The investigation found that on take-off, the propeller was in coarse pitch; hence, the engine was unable to deliver full power. The pilot had not flown this type of aircraft for 7 months.

83-Ø30068 Aeronca S15AC C-FNYL

DATE: 13 Aug 1983 2055 EDT
 OPERATION: Private recreation
 PLACE: 3 mi SW of Stratford Ont 43/19N 81/03W
 LOCALE: Flat cultivated field 1179' ASL
 WEATHER: Wind S 3 kt vis 15+ cloud 5000' SCT temp 17°C
 PILOT: Private
 TOTAL HOURS: 650 ALL TYPES 5 ON TYPE
 LAST 90 DAYS: 20 ALL TYPES 4 ON TYPE

CASUALTIES: Crew: 1 uninj; pass: 1 minor, 1 uninj.

OCCURRENCE: While in cruise flight, the engine failed and the pilot had to make a forced landing. After he touched down in a farmer's field, the aircraft decelerated rapidly and nosed over due to the low dense vegetation.

Technical examination revealed that the engine failure resulted from fuel exhaustion. Except for a very small quantity of unusable fuel, the tanks and lines were empty.

The pilot had departed with 27 imperial gallons, and according to his calculations, had ample fuel to reach his destination. He had assumed a fuel consumption of 7 gallons per hour when the actual consumption for this engine is about 9.5 gallons per hour. He had only 5 hours on this type of aircraft.

83-030072

Piper PA-12

C-GDND

DATE: 20 Aug 1983 1949 EDT

OPERATION: Private recreation

PLACE: Jackson's Point Ont 44/30N 79/22W

LOCALE: Lake water area (large) 750' asl

WEATHER: Wind N 10G12 kt vis 20 sky clear temp 20°C

PILOT: Private

TOTAL HOURS:	350	ALL TYPES	200	ON TYPE
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LAST 90 DAYS:	50	ALL TYPES	50	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 1 uninj.

OCCURRENCE: As the aircraft emerged from a sheltered bay during the take-off run, it encountered a swell and became airborne prematurely. It settled back hard on the left float damaging the left strut, left float and propeller.

83-030075

Cessna 150L

C-GPUD

DATE: 21 Aug 1983 1840 EDT

OPERATION: Private recreation

PLACE: Lindsay Arpt Ont 44/22N 78/47W

LOCALE: Paved runway 3000' by 75' 882' asl

WEATHER: Wind SW 9 kt vis 15+ cloud scattered temp 21°C

PILOT: Private licence

TOTAL HOURS:	202	ALL TYPES	126	ON TYPE
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LAST 90 DAYS:	17	ALL TYPES	17	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj.

OCCURRENCE: The pilot was attempting a landing with full flap extended. During the landing roll-out, the aircraft began to swing to the left so the pilot applied full power for a go-around. The swing continued, and the aircraft became airborne as it ran off the left side of the runway. With full flap still extended, the aircraft struck the ground in a nose-low attitude 190 feet to the left of the runway.

83-030077

Piper PA23-250

CF-QEW

DATE: 25 Aug 83 1609 EDT

OPERATION: Specialty training

PLACE: Ottawa Int'l Arpt Ont 45/19N 75/40W

LOCALE: Paved runway 8000' by 200' 374' ASL

WEATHER: Wind S 7 kt vis 25 cloud 4000' SCT temp 28°C

PILOT: Private

TOTAL HOURS: 302 ALL TYPES 4 ON TYPE

LAST 90 DAYS: 16 ALL TYPES 4 ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj.

OCCURRENCE: During a normal landing the left gear collapsed. Extensive technical investigation failed to find the reason.

83-030078

Lake LA4-200

C-FQOD

DATE: 25 Aug 1983 1230 EDT

OPERATION: Private test

PLACE: Porcupine Lake Ont 48/29N 81/12W

LOCALE: Lake water area 10000' by 6000' 915' ASL

WEATHER: Wind N 3 kt vis 12 cloud 1000' OVC temp 16°C

PILOT: Private

TOTAL HOURS: 405 ALL TYPES 6 ON TYPE

LAST 90 DAYS: 1 ALL TYPES 1 ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj.

OCCURRENCE: The aircraft was being test flown after undergoing repairs previously, it had been damaged in a similar accident with the same pilot at the controls (82-020088). On this particular accident, the pilot lost control of the aircraft while giving himself a check out on water and test flying the machine. He claimed that he had a momentary loss of power after take-off, and the aircraft was damaged when he made a rushed precautionary landing.

A witness said the pilot lost control of the aircraft when it porpoised on take-off (just as happened before). Aircraft damage seemed more consistent with this type of accident than a hard landing.

The pilot held a "seaplane" rating, but had only flown "float" aircraft. He had not received a proper check out on "hull" type aircraft, and therefore was not familiar with some of its idiosyncracies.

It was obvious that the pilot did not benefit from his previous accident. He did not seek out another pilot to give him a proper check out, and as a result, had the same problem. The only difference was that the aircraft was more extensively damaged during the first accident.

83-030080

Piper PA18S-135

CF-LMY

DATE: 1 Sep 1983 1200 EDT

OPERATION: Private recreation

PLACE: Lipsy Lake Ont 45/10N 78/38W

LOCALE: Lake water area 2000' by 1500'

WEATHER: Wind WNW 7 kt vis 15 cloud 3000' SCT temp 23°C

PILOT: Private

TOTAL HOURS: 1136 ALL TYPES 1136 ON TYPE

LAST 90 DAYS: 15 ALL TYPES 15 ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 1 uninj.

OCCURRENCE: The pilot reported the surface of the lake was glassy and shimmering in the sunshine, making depth perception difficult. He misjudged the height and failed to flare in time to avoid a hard landing. The force was sufficient to bend the forward fuselage.

83-030082

Beech A23-19

C-FFPA

DATE: 4 Sep 1983 1615 EDT

OPERATION: Private recreation

PLACE: 1 mi N of Stirling Ont 44/20N 77/32W

LOCALE: Rolling corn field 625' ASL

WEATHER: Wind SW 13 kt vis 5 sky OBS temp 26°C

PILOT: Private

TOTAL HOURS: 353 ALL TYPES 3 ON TYPE

LAST 90 DAYS: 7 ALL TYPES 3 ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj.

OCCURRENCE: While in cruise flight the engine failed and the pilot landed in a corn field. The engine failure was caused by fuel starvation due to blockage of the left fuel line. An insect had entered the line and built a nest while the wing was detached from the fuselage with the fuel line open.

The blockage was not detected by the engineer that reassembled the aircraft, the test pilot or the new owner.

83-030083

Piper PA-18A-135

C-FVTX

DATE: 5 Sep 1983 1530 EDT

OPERATION: Private recreation

PLACE: 5 mi E of Nagagami Lake Ont 49/25N 85/01W

LOCALE: Lake water area 11560' by 5280'

WEATHER: Wind ENE 4 kt vis 12 cloud 800' overcast

PILOT: Private

TOTAL HOURS: 121 ALL TYPES 10 ON TYPE

LAST 90 DAYS: 10 ALL TYPES 10 ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 minor

OCCURRENCE: The pilot was landing to pick up the third of four friends he was transporting from the lake. He reported that he approached to the SW with 10 degrees flap at 80 mph, with carb heat on. He felt that he flared too high, and the aircraft touched down heavily and bounced; he applied full throttle, but the engine did not respond. The aircraft bounced again, and on the third touchdown nosed over. The pilot had some difficulty orienting himself but was able to undo his seat belt and escape; he was rescued by his friends.

The pilot had obtained his float endorsement about a week before the accident, and had 10 hours seaplane experience. The weather was not a factor, and the lake was large enough; light winds produce a ripple on the surface, so glassy water was not a factor. The centre of gravity was slightly forward of the limit, which may have aggravated recovery from the bounce. It is possible that the engine's failure to respond was due to rapid throttle application. It ran well after recovery.

83-030085

Cessna 150M

C-GNUP

DATE: 1 Jun 1983

OPERATION: Private training

PLACE: Princeton Ont 43/10N 80/32W

LOCALE: Dirt runway 2000' long 815' asl

WEATHER: Wind W vis 15+ cloud 5000'

PILOT: Student

TOTAL HOURS:	70	ALL TYPES	unknown	ON TYPE
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LAST 90 DAYS:	5	ALL TYPES	unknown	ON TYPE
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DAMAGE: Destroyed

CASUALTIES: Crew: 1 uninj.

OCCURRENCE: The pilot reported that he was coming in for a landing when a sudden gusty crosswind caused him to lose control of the aircraft which eventually came to rest inverted.

The accident was not reported for about four months. During this interval the wreckage was buried following removal of the engine.

Records indicate the pilot's medical had lapsed some eight months prior to the accident.

83-030087

SIAI - Marchetti S205-22R

CF-XAJ

DATE: 25 Sep 1983 1505 EDT

OPERATION: Private recreation

PLACE: 1 mi s of Leretto Ont 44/02N 79/53

LOCALE: Flat grass-covered area 825' asl

WEATHER: Wind SSW 17 kt vis 15 cloud 3000' BKN temp 15°C

PILOT: Private

TOTAL HOURS:	700	ALL TYPES	156	ON TYPE
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LAST 90 DAYS:	18	ALL TYPES	18	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 serious; pass: 2 serious.

OCCURRENCE: The pilot reported that shortly after becoming airborne, a roughness developed in the engine followed by a drop in oil pressure. Also there was some oil on the wind-screen. The pilot decided to make a forced landing, when suddenly the engine quit.

The pilot had selected a suitable field for a forced landing, but made the approach at a higher airspeed than normal. Consequently, the aircraft touched down long and used up all of the field, bounced over a road and came to rest on the far side.

The #3 cylinder had failed for undetermined reasons. This breakup resulted in the failure of #3 and #4 connecting rods, cam shaft and eventually the engine block.

83-030088

Cessna 185F

C-GVXV

DATE: 24 Sep 1983 1605 EDT

OPERATION: Private business

PLACE: Muskoka Arpt Ont 44/58N 79/18W

LOCALE: Paved runway 6000' by 150' 925' asl

WEATHER: Wind WNW 10 kt vis 15 cloud 4000' SCT temp 15°C

PILOT: Private

TOTAL HOURS:	1653	ALL TYPES	101	ON TYPE
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LAST 90 DAYS:	47	ALL TYPES	47	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 1 uninj.

OCCURRENCE: During the landing roll, in gusting crosswinds, the pilot lost directional control and the aircraft ground looped.

The pilot stated that he had been flying through rain for several hours. He believed he may have been slow to compensate for the crosswind as a result of fatigue.

83-030091

Cessna 150G

C-FVDU

DATE: 2 Oct 1983 1300 EDT

OPERATION: Private recreation

PLACE: 1 mi W of Alban Ont 46/10N 80/06W

LOCALE: Grass runway 1500' long 900' ASL

WEATHER: Wind S 10 kt vis 5 cloud 2000' scattered temp 21°C

PILOT: Private

TOTAL HOURS:	290	ALL TYPES	290	ON TYPE
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LAST 90 DAYS:	27	ALL TYPES	27	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 1 uninj.

OCCURRENCE: The pilot had planned to depart into wind, and fly to a nearby aerodrome for enroute refuelling.

During the take-off roll, the aircraft failed to accelerate to a speed that would permit a normal take-off and climb-out. The machine became airborne within ground effect only. With insufficient runway remaining, the pilot aborted the take-off and struck the trees at the end of the strip.

The aircraft remained upright, sustaining damage to the wings, fuselage and landing gear.

The long grass covering the runway, prevented adequate acceleration on the take-off roll.

83-P30036

Cessna 180

C-GMOO

DATE: 12 Jun 1983 1700 PDT

OPERATION: Private recreation

PLACE: Paranaut Field BC 49/05N 122/19W

LOCALE: Grass-covered strip

WEATHER: Wind light vis 30+ sky clear temp 23°C

PILOT: Commercial

TOTAL HOURS:	499	ALL TYPES	28	ON TYPE
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LAST 90 DAYS:	42	ALL TYPES	24	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 1 uninj.

OCCURRENCE: The pilot reportedly misjudged his circuit and found himself high on final approach - 600 feet AGL, one-half mile back. Rather than conducting a missed approach, he lost the excess altitude by flying S-turns. The pilot lost control on short final and the aircraft touched down on the strip but cocked about 45 degrees to the right. The left main gear was sheared off and the aircraft came to rest on its nose.

The pilot felt his relative inexperience on the Cessna 180 was a factor in the poorly flown circuit. This coupled with the pressure to land and pick up another load of parachutists induced him to attempt to salvage the approach rather than go around.

83-P30037

Piper PA28-140

C-GAMC

DATE: 13 Jun 1983 2100 PDT

OPERATION: Other

PLACE: Quasar Airstrip BC 54/53N 120/39W

LOCALE: Gravel runway 3100' long

WEATHER: Not significant

PILOT: Unknown

TOTAL HOURS:	Unknown	ALL TYPES	Unknown	ON TYPE
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LAST 90 DAYS:	Unknown	ALL TYPES	Unknown	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 2 uninj.

OCCURRENCE: The aircraft was extensively damaged in a hard landing at a private strip. Apparently there were three on board, but they abandoned the aircraft, and could not be contacted later. The case was turned over to enforcement authorities.

83-P30038

de Havilland DHC-4A

C-GVYZ

DATE: 19 Jun 1983 1920 PDT

OPERATION: Charter

PLACE: Snippaker Creek BC 56/35N 130/46W

LOCALE: Gravel runway 2900' by 100' 1800' asl

WEATHER: Not significant

PILOT: Airline Transport licence

TOTAL HOURS:	12000	ALL TYPES	2000	ON TYPE
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LAST 90 DAYS:	190	ALL TYPES	190	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 2 uninj.

OCCURRENCE: On approach, the pilot did not lower the gear or call for a landing check. His first call was for 15 degrees flap, then 30. The landing check was not done. As he reduced power during the flare, the landing gear warning horn sounded; he applied power to overshoot but it was too late.

The crew had been flying since 1000 and this was their sixth flight of the day. The flights were short, but the crew had to assist in loading and unloading the cargo. In addition, crew rest had been interrupted by a camp fire during the night. This, combined with the heavy manual labour, probably contributed to fatigue.

83-P30039

Cessna 177RG

C-GUNY

DATE: 21 Jun 1983 2124 PDT

OPERATION: Private recreation

PLACE: Burnaby BC 49/14N 122/57W

LOCALE: Rolling grass-covered area 55' ASL

WEATHER: Wind light vis 15+ cloud scattered temp 18°C

PILOT: Private

TOTAL HOURS:	700	ALL TYPES	55	ON TYPE
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LAST 90 DAYS:	35	ALL TYPES	30	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 minor; Pass: 1 minor.

OCCURRENCE: The pilot was on a local flight with planned air time of less than 1 hour. He estimated there was enough fuel to last at least 1½ hours.

After the initial take-off, he landed and spent about 5 minutes on the ground. He took off again and planned to return to destination. After about 45 minutes of flight, the engine faltered and then failed. He reported that after switching tanks (even with the auxiliary fuel pump) the engine would run only momentarily.

The pilot then selected an area suitable for a forced landing. On final approach, however, he landed long. The aircraft overran the area and came to rest in some small trees.

The engine ran smoothly when refuelled. The pilot had misjudged his fuel supply and the engine failed due to fuel exhaustion.

83-P30040

Champion 7GCBC

C-GATW

DATE: 27 Jun 1983 1830 PDT

OPERATION: Private recreation

PLACE: Eutsek Lake BC 53/15N 126/08W

LOCALE: Lake water area 859' asl

WEATHER: Wind W 8 kt vis 15+ sky clear temp 15° C

PILOT: Private licence

TOTAL HOURS: 180 ALL TYPES 100 ON TYPE

LAST 90 DAYS: 20 ALL TYPES 20 ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 serious; Pass: 1 serious.

OCCURRENCE: Having landed twice on lakes where fishing conditions proved unsuitable, the pilot departed for his point of origin. At two hundred feet above ground he turned sharply downwind. The aircraft stalled, struck the water in a nose-down attitude and sank shortly after the occupants evacuated. The pilot's inattention to airspeed was possibly influenced by the increase in ground speed apparent to him at low level downwind.

The stall was attributed to the aircraft's banked attitude at a reduced airspeed; this condition was further aggravated as the take-off weight was slightly above limits.

Had the pilot assumed more altitude prior to his turn, he may have been able to recover from the stall.

83-P30041

Cessna 172L

CF-QZR

DATE: 10 Jul 1983 1730 PDT

OPERATION: Private recreation

PLACE: Texada Island BC 49/30N 124/20W

LOCALE: Grass-covered hill 1400' asl

WEATHER: Wind ESE 20 kt vis 0 cloud 600' overcast temp 12°C

PILOT: Private

TOTAL HOURS: 233 ALL TYPES 155 ON TYPE

LAST 90 DAYS: 7 ALL TYPES 7 ON TYPE

DAMAGE: Destroyed

CASUALTIES: Crew: 1 fatal; pass: 2 fatal.

OCCURRENCE: The aircraft struck terrain in near level flight while under power. Weather was such that the aircraft was probably in cloud at the time of impact although the pilot had planned a VFR flight.

It is likely the pilot continued into deteriorating weather and while attempting to extricate himself, misjudged the terrain clearance.

83-P30042

Robinson R-22

C-GTHC

DATE: 17 Jul 1983 2000 PDT

OPERATION: Charter

PLACE: Qualicum Arpt BC 49/20N 124/25W
LOCALE: Rolling tree-covered area 160'ASL
WEATHER: Wind calm vis 15+ sky clear temp 20° C
PILOT: Commercial
TOTAL HOURS: 900 ALL TYPES 55 ON TYPE
LAST 90 DAYS: unknown ALL TYPES unknown ON TYPE
DAMAGE: Substantial

CASUALTIES: Crew: 1 serious; passenger: 1 fatal

OCCURRENCE: While the helicopter was on a low approach to the airport, the engine failed due to fuel exhaustion. There were suitable areas nearby where a forced landing could have been carried out but because of the low altitude, the aircraft crashed into tall trees before this could be done.

The pilot was taking friends and relatives on local sightseeing flights. The hourmeter showed that the flights lasted 2.75 hours, even though the pilot had been trained not to exceed 2 hours flight time. There was less than a cup of fuel remaining in the undamaged fuel system.

After the accident, it was found that the low level fuel light was not working due to a pulled wire in the sending unit. It could not be determined if the wire was pulled prior to, or as a result of the accident (LP 297/83).

The passenger (the pilot's mother) weighed 240 pounds. To compensate for this, she was boarded last with a known low fuel weight. The calculated weight and balance with pilot and passenger, but no fuel, shows a weight of 1258.4 pounds and the centre of gravity position approximately one inch ahead of the allowable range. Twelve US gallons of fuel would be required to locate the centre of gravity at the forward limit, making the helicopter 30 pounds over its maximum allowable weight of 1300 pounds.

The ELT did not activate because the shipping screw had not been removed, in spite of a large tag which stated that it was to be removed immediately (LP 281/83).

The pilot cannot remember any of the details of this or any previous flights that day.

83-P30043

Piper PA23-250

C-FVUL

DATE: 19 Jul 1983 1530 PDT

OPERATION: Charter

PLACE: Phillips Arm BC 50/34N 125/22W

LOCALE: Gravel runway 2000' by 35' 60' asl

WEATHER: Wind light vis 15+ cloud 25000 broken temp 21°C

PILOT: Senior commercial

TOTAL HOURS:	4500	ALL TYPES	200	ON TYPE
LAST 90 DAYS:	140	ALL TYPES	10	ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj;

OCCURRENCE: After landing and dropping off a passenger at a narrow, shrub-lined strip, the pilot turned to take off. Tracks show that he was not aligned on the centerline and allowed the wing to project over the edge about three feet into the brush. As the aircraft accelerated, an uncontrollable swing developed; the machine skidded off the runway into the trees.

Although the pilot was aware the wing span exceeded the width of the strip, and both tips would project into the brush, apparently he didn't consider this situation hazardous. Likely, he expected to strike the brush but underestimated its effect on directional control as his speed increased.

The pilot should not have attempted to use the runway, nor should the company have used this size aircraft for the flight.

83-P30046

Piper PA18-150

C-GMOQ

DATE: 24 Jul 1983 1130 PDT

OPERATION: Private business

PLACE: McNair Creek BC 55/40N 122/43W

LOCALE: Gravel runway 1200' long

WEATHER: Wind calm vis 15+ sky clear temp 18°C

PILOT: Private licence

TOTAL HOURS:	208	ALL TYPES	160	ON TYPE
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LAST 90 DAYS:	33	ALL TYPES	33	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 1 uninj.

OCCURRENCE: The pilot was taking off from a soft and muddy strip. The aircraft did not accelerate normally, but he continued the take-off. After becoming airborne, the aircraft struck low trees at the end of the strip and overturned.

83-P30047

Cessna 182M

C-FYYB

DATE: 30 Jul 1983 1430 PDT

OPERATION: Private recreation

PLACE: Savory Island BC 49/56N 124/48W

LOCALE: Sand runway 2400' long

WEATHER: Wind W. 10 kt vis 15+ sky clear temp 27° C

PILOT: Commercial

TOTAL HOURS:	2500	ALL TYPES	165	ON TYPE
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LAST 90 DAYS:	8	ALL TYPES	8	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; Pass: 1 uninj.

OCCURRENCE: The pilot was landing into wind from east to west. He set the aircraft up for a short field landing. Prior to touchdown, he reported that the aircraft encountered a downdraft resulting in a heavy landing just short of the runway; the sand was soft and the nose gear collapsed.

As the wind was from the west and the strip was on the lee side of the island, conditions were conducive to turbulence and downdrafts.

83-P30048

Boeing A75-22

C-GPTD

DATE: 29 Jul 1983 2029 PDT

OPERATION: Private recreation

PLACE: Oliver BC 49/10N 119/33W

LOCALE: Paved parking lot and tennis court

WEATHER: Wind calm Vis 15t sky clear temp 19° C

PILOT: Private

TOTAL HOURS:	5000	ALL TYPES	2	ON TYPE
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LAST 90 DAYS:	60	ALL TYPES	2	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninjured; passenger: 1 uninjured; other: 1 minor

OCCURRENCE: After completing a low level pass, the pilot reported there was a decrease in engine power. He selected an open area beside a motel for a forced landing and as he approached, both left wings struck a hydro pole and were sheared off. The aircraft fell to the surface of an adjacent parking lot, collided with a parked vehicle and came to a stop inside a tennis court enclosure.

Technical examination of the engine revealed no evidence of any malfunction that could have caused the loss of power.

83-P30049

North American SNJ-5

C-GPIN

DATE: 31 Jul 1983 1322 PDT

OPERATION: Private business

PLACE: Oliver Arpt BC 49/10N 119/33W

LOCALE: Paved runway 2500, by 50' 1015' ASL

WEATHER: Wind calm Vis 15t sky clear temp 27° C

PILOT: Commercial

TOTAL HOURS:	7800	ALL TYPES	110	ON TYPE
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LAST 90 DAYS:	70	ALL TYPES	25	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninjured

OCCURRENCE: Following a normal approach, and run-on type wheel landing, a swing to the left developed. During the recovery attempt, the aircraft went up on its nose and came to rest inverted. The pilot was not injured possibly because he was wearing a helmet.

83-P30050

Piper PA28-236

C-GHYX

DATE: 6 Aug 1983 1230 PDT

OPERATION: Private recreation

PLACE: near Chilliwack BC 49/07N 122/05W

LOCALE: Grass strip 1300' by 42'

WEATHER: Wind light vis 15+ sky clear

PILOT: Private licence

TOTAL HOURS:	347	ALL TYPES	126	ON TYPE
LAST 90 DAYS:	57	ALL TYPES	unknown	ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 3 uninj.

OCCURRENCE: The pilot was landing at a farm strip to deplane a passenger. The aircraft required a ground run of 825 ft under existing conditions, so the 1300 foot strip, with no obstructions on approach, was suitable. The light winds were variable, with a possible tail wind component.

The pilot decided not to land on his first approach and took off after landing on his second, feeling he was going too fast. On the third approach, the aircraft touched down within 300 feet of the threshold and bounced. The pilot raised the flaps and braked, the started to steer left, feeling the aircraft would not stop. It overran through a barbed wire fence and struck fence poles. A lack of short field experience and the suspected tail wind were factors in the overrun.

83-P30052

Bellanca 7GCBC

C-GOWA

DATE: 13 Aug 1983 0845 PDT

OPERATION: Private recreation

PLACE: Mount Wells BC 54/43N 126/32W

LOCALE: Tree-covered mountains 5000' asl

WEATHER: Wind SE 10 kt vis 15+ sky broken temp 10°C

PILOT: Commercial

TOTAL HOURS:	1000	ALL TYPES	500	ON TYPE
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LAST 90 DAYS:	100	ALL TYPES	100	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; Pass: 1 uninj.

OCCURRENCE: The aircraft was flying in an area between two mountains and into a 10-15 mph headwind. The machine was unable to outclimb the rising terrain of the valley.

It's possible that the wind coming down the valley reduced the aircraft's rate of climb such that ground clearance could not be maintained.

83-P30057

Cessna 150H

C-FVUF

DATE: 18 Aug 1983 1930 PDT

OPERATION: Specialty training

PLACE: 27 miles N of Squamish BC 50/04N 123/18W

LOCALE: Tree-covered mountains 1600' asl

WEATHER: Wind light vis 15+ sky clear temp 22°C

PILOT: Commercial licence

TOTAL HOURS:	620	ALL TYPES	200	ON TYPE
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LAST 90 DAYS:	90	ALL TYPES	90	ON TYPE
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DAMAGE: Destroyed

CASUALTIES: Crew: 2 serious.

OCCURRENCE: On the go-around from a practice forced landing, during dual instruction, the aircraft was not able to outclimb the rising terrain. The aircraft was destroyed by fire after it struck the tree tops.

83-P30058

Luscombe T8F

C-FNCP

DATE: 19 Aug 1983 1527 PDT

OPERATION: Private recreation

PLACE: Prince George Arpt BC 53/53N 122/41W

LOCALE: Paved runway 7400' by 150' 2268' asl

WEATHER: Wind W 10 G 19 kt vis 15+ cloud 5700' scattered temp 18°C

PILOT: Private licence

TOTAL HOURS:	500	ALL TYPES	250	ON TYPE
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LAST 90 DAYS:	60	ALL TYPES	4	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 1 uninj.

OCCURRENCE: During a landing in a strong cross-wind, the pilot attempted to maintain directional control by applying brakes. The aircraft nosed over inverted.

The 55 degree cross-wind (which was gusting to 19 kts) exceeded the directional control capability of this aircraft. Based on the cross-wind landing limitations contained in section AIR 1.13 of the AIP, the 55 degree cross-wind limit is about 12 kts. A more suitable runway was not available due to construction that was in progress.

It was apparent that while attempting to prevent the aircraft from veering into wind and off the runway, the pilot locked one or both main wheels causing the aircraft to nose over.

83-P30062

Britten-Norman BN2A-21

C-GIPF

DATE: 2 Sep 1983

OPERATION: Charter

PLACE: Unknown

LOCALE: Mountainous area

WEATHER: Wind WNW 35 Kt sky OVC with rain showers

PILOT: Commercial

TOTAL HOURS:	5500	ALL TYPES	unknown	ON TYPE
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LAST 90 DAYS:	unknown	ALL TYPES	unknown	ON TYPE
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DAMAGE: Unknown

CASUALTIES: Crew: 1 missing; pass: 6 missing.

OCCURRENCE: The aircraft was on a VFR flight from Campbell river to Smithers. When it failed to arrive at destination an extensive search was begun. Search efforts continued for six weeks but no trace of the aircraft was found. Weather conditions at the time of the disappearance suggest it is possible the pilot encountered below VFR conditions while in mountainous terrain.

83-P30068

Ercoupe 415C

C-FHIN

DATE: 22 Sep 1983 1845 PDT

OPERATION: Private recreation

PLACE: Sumas BC 49/02N 122/12W

LOCALE: Grass field 1250' by 300' 35' asl

WEATHER: Wind calm vis 15+ sky clear temp 17°C

PILOT: Private

TOTAL HOURS: 153 ALL TYPES 25 ON TYPE

LAST 90 DAYS: 33 ALL TYPES 25 ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 minor; pass: 1 minor.

OCCURRENCE: On final approach, the aircraft began to settle. The pilot applied power to stop the descent, but the aircraft collided with a wire fence bordering the field.

83-P30070

Piper PA-20

C-FBIA

DATE: 23 Sep 1983 1250 PDT

OPERATION: Private recreation

PLACE: Pitt Meadows Arpt BC 49/13N 122/43W

LOCALE: Paved runway 2500' by 75' 11' asl

WEATHER: Wind SSE 5 kt vis 10 cloud scattered

PILOT: Private

TOTAL HOURS: 125 ALL TYPES 110 ON TYPE

LAST 90 DAYS: 1 ALL TYPES 1 ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj.

OCCURRENCE: The pilot was conducting a local flight in the circuit to practise touch-and-go landings. During one landing attempt, he lost directional control and the aircraft ground looped; one wing contacted the ground and the right main landing gear collapsed.

The pilot had accumulated a grand total of 125 hours of flying time over a 14 year period. In the year preceding the accident he had flown only three hours, and only one hour in the previous 90 days. This overall low level of experience, combined with the almost total lack of recent flying, were the key factors leading to the loss of control.

83-P30072

Cessna 172M

C-GJWX

DATE: 2 Oct 1983 1430 PDT

OPERATION: Private recreation

PLACE: Lillooet Lake South BC 50/08N 122/31W

LOCALE: Gravel runway 1200' by 50' 600' asl

WEATHER: Wind NNE 5 kt vis 15+ cloud scattered temp 17°C

PILOT: Private

TOTAL HOURS: 105 ALL TYPES 105 ON TYPE

LAST 90 DAYS: 35 ALL TYPES 35 ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 2 uninj.

OCCURRENCE: The pilot was landing at an abandoned aerodrome. The runway surface was reported to be very rough; in addition, trees were growing out to the edges of the landing area reducing its effective width to about 50 feet.

The pilot reported that shortly after touchdown, the aircraft veered to the left and the left wing contacted a tree.

Apparently, the pilot was unable to maintain the precise directional control required to execute the near maximum performance stop. It appears the pilot lacked the necessary skill and experience.

83-P30077

Cessna 185F

C-GGLV

DATE: 28 Oct 1983 1755 PDT

OPERATION: Private recreation

PLACE: Trail Arpt BC 49/04N 117/36W

LOCALE: Paved runway 3000' by 75' 1420' asl

WEATHER: Wind N 5 kt vis 15+ cloud 10000' broken

PILOT: Airline Transport

TOTAL HOURS:	3000	ALL TYPES	500	ON TYPE
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LAST 90 DAYS:	30	ALL TYPES	3	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj.

OCCURRENCE: As the tail came down during the landing roll, the pilot stated the aircraft started a swing to the left. He corrected but the aircraft swung to the right and ground looped. The aircraft had just been acquired by the pilot and, although he was experienced on type, it was his first trip in this particular machine. Winds were light and within 20 to 30 degrees of runway heading. Despite considerable experience on type, the pilot over-corrected and induced a ground loop in the opposite direction.

82-Q20020

Piper PA18-135

CF-QCA

DATE: 20 March 1982 1800 EST

OPERATION: Private recreation

PLACE: Grand Remous, Que. 46/48N 75/51W

LOCALE: Dirt road in rolling tree-covered area

WEATHER: Wind SE 3 kt, vis 15+, cloud 3000' scattered, temp. 3°C

PILOT: Private

TOTAL HOURS:	149	ALL TYPES	126	ON TYPE
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LAST 90 DAYS:	41	ALL TYPES	41	ON TYPE
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DAMAGE: Destroyed

CASUALTIES: Crew: 1 fatal; pass: 1 fatal, 1 serious

OCCURRENCE: The pilot and two passengers were returning home from a day of fishing. Five miles short of destination, the aircraft was observed with its prop windmilling in what was apparently an attempt at a forced landing on a dirt road. During the approach, and while in a steep banked turn, the right wing struck a telephone wire, was sheared off, and the aircraft fell to the ground on its back.

It is probable that a loss of engine power occurred when the pilot ran the selected fuel tank dry. Investigation determined that flight time since refuelling closely coincided with the fuel endurance of one of the aircraft's two tanks. To obtain maximum range, the aircraft owners manual recommends running the tank dry before switching. Most likely, the low altitude at the time of the occurrence, and possible pilot impairment from alcohol, prevented him from selecting the other fuel tank and continuing the flight. Investigation and post-mortem examination determined that the pilot had consumed alcohol during the day. In addition, the aircraft weight exceeded the maximum allowable, and the C of G was at or near the rear limit because a second passenger was seated in the aircraft's baggage compartment. It is possible that this state affected the aircraft handling characteristics during the forced landing attempt.

82-Q20066

Sportsman VJ22L

C-FVAL

DATE: 11 September 1982 1600 EDT

OPERATION: Private training

PLACE: Dolbeau Que 48/47N 72/22W

LOCALE: River water area

WEATHER: Wind SSE 5 kt vis 20+ sky clear temp 20°C

PILOT: Private

TOTAL HOURS:	92	ALL TYPES	10	ON TYPE
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LAST 90 DAYS:	16	ALL TYPES	10	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj.

OCCUURENCE: Wishing to acquire a float endorsement, the pilot completed several hours of dual instruction on water operations in his newly purchased amphibious aircraft. Intending to carry out some solo practice enroute, he took off to do some touch-and-go landings on a river adjacent to the airport; however, he forgot to raise the gear after departure. On the first touchdown on the river, the aircraft went over onto its back. Subsequent investigation revealed that the pilot had not done a pre-landing check and did not have a proper check list on board.

82-Q20067

Rand KR-1

C-GXKG

DATE: 12 Sep 1982 1030 EDT

OPERATION: Private recreation

PLACE: Jonqui re Que 48/25N 71/15W

LOCALE: Rolling grass-covered field

WEATHER: Wind calm vis 15+ sky clear temp 20°C

PILOT: Private

TOTAL HOURS:	200	ALL TYPES	150	ON TYPE
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LAST 90 DAYS:	10	ALL TYPES	10	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj.

OCCURRENCE: On the pre-flight check, the pilot drained a considerable amount of water from the fuel system. The engine start-up, take-off and climb were normal. On climbing through 1,000 feet, the pilot reported that when he lowered the nose, the engine quit; he made a straight ahead forced landing with the gear up.

The pilot had built the aircraft himself according to instructions. However, the design of the tank did not permit full drainage either when the aircraft was sitting on the ground, or in level flight.

For some reason, water had accumulated in the fuel system and was not completely released by the drain design; this caused the engine failure.

82-Q20068

de Havilland DHC-2

C-FZKU

DATE: 22 Sep 1982 1415 EDT

OPERATION: Charter

PLACE: Poste de la Baleine Que 55/16N 77/47W

LOCALE: River water area

WEATHER: Wind N 15 kt vis 15+ sky clear

PILOT: Commercial

TOTAL HOURS:	2300	ALL TYPES	1000	ON TYPE
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LAST 90 DAYS:	90	ALL TYPES	90	ON TYPE
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DAMAGE: Minor

CASUALTIES: Crew: 1 uninj; pass: 3 uninj; other: 1 minor injury.

OCCURRENCE: The pilot shut off the engine as the float aircraft approached to tie-up at the dock. An attendant standing on the dock jumped onto the float to aid in securing the aircraft, and was struck on the elbow by the still rotating propeller.

82-Q20069

Cessna A185F

C-GXWT

DATE: 27 Sep 1982 1730 ADT

OPERATION: Charter

PLACE: Riviere Georges Que 56/32N 64/45W

LOCALE: River water area 3100' long

WEATHER: Wind NNW 30G40 kt vis 15 cloud 2500' broken temp 0°C

PILOT: Commercial

TOTAL HOURS:	2295	ALL TYPES	unknown	ON TYPE
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LAST 90 DAYS:	unknown	ALL TYPES	unknown	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 fatal; pass: 1 fatal, 1 minor.

OCCURRENCE: The pilot was attempting his third take-off in strong gusting cross-winds. As he approached lift-off speed, the wind raised the left wing, the right float dug in and the aircraft overturned. The three persons aboard escaped without injury, but the pilot and one passenger died from exposure. The 50 degree cross-wind gusting to 40 knots exceeded the aircraft limitations.

82-Q20070

Piper PA23-250

C-FDSI

DATE: 28 Sep 1982 1645 EDT

OPERATION: Charter

PLACE: Val d'or Arpt Que 48/03N 77/47W

LOCALE: Paved runway 10000' by 200' 1106' ASL

WEATHER: Vis 15+ sky clear

PILOT: Commercial

TOTAL HOURS: 1650 ALL TYPES 300 ON TYPE

LAST 90 DAYS: unknown ALL TYPES unknown ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 3 uninj.

OCCURRENCE: As the pilot was taxiing, the left main gear collapsed. Technical examination of the rod end of the landing gear showed that "gear actuating cylinder rod" had failed due to an abnormal overload.

The gear lock did not fall into position, and the landing load of the aircraft was imposed on the gear actuating cylinder rod.

The reason for the gear being unlocked could not be determined.

82-Q20071

Piper PA-32-300

C-GRLS

DATE: 29 Sep 1982 1420 EDT

OPERATION: Charter

PLACE: near Lac Manouane Que 47/30N 74/03W

LOCALE: Grass-covered hills 1550' asl

WEATHER: Wind ESE 5 kt vis 20 cloud 8000' scattered temp 9°C

PILOT: Private

TOTAL HOURS: 3000 ALL TYPES Unknown ON TYPE

LAST 90 DAYS: 40 ALL TYPES 40 ON TYPE

DAMAGE: Destroyed

CASUALTIES: Crew: 1 fatal; pass: 1 serious

OCCURRENCE: While in level cruise, the engine started knocking and finally failed completely; the pilot set up a pattern to land on a gravel road and called Mayday. On final approach, the left wing struck a tree, causing the loss of control and crash.

Subsequent inspection revealed that the loss of power was due to oil pump failure.

82-Q20072

Bell 206L

C-GVYM

DATE: 1 Oct 1982 1410 EDT

OPERATION: Charter

PLACE: Marte River Que 51/10N 75/20W

LOCALE: Swampy area in hills

WEATHER: Wind NW 15G25 kt vis 3 cloud 1000' overcast

PILOT: Commercial Rotorcraft

TOTAL HOURS:	1930	ALL TYPES	1900	ON TYPE
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LAST 90 DAYS:	314	ALL TYPES	314	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj.

OCCURRENCE: The helicopter was landed in a soft marshy area. The pilot reported that as he was shutting the engine down the helicopter settled backwards and the tail rotor contacted the surface of the muskeg. The pilot had been flying continuously for the past 3 months and was suffering from fatigue.

82-Q20074

Piper PA18-150

C-GSXH

DATE: 5 Oct 1982 1710 EDT

OPERATION: Private recreation

PLACE: Lac Ouimet, Que. 46/10N 74/35W

LOCALE: Lake water area

WEATHER: Wind light vis 15+ sky clear temp 15°C

PILOT: Private

TOTAL HOURS:	1016	ALL TYPES	425	ON TYPE
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LAST 90 DAYS:	44	ALL TYPES	40	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj

OCCURRENCE: Shortly after lift-off, the pilot realized that the aircraft would not outclimb the rising terrain. He made a 180 degree turn to land back on the lake. As he flared for the landing, the aircraft banked to the right, the nose of the right float dug in and the aircraft overturned.

During the take-off it appeared that the aircraft was into wind, but it is suspected that the wind shifted and the pilot actually had a tail wind.

82-Q20076

Cessna 180H

CF-RYI

DATE: 30 Sep 1982 1400 EDT

OPERATION: Private business

PLACE: Grand Lac au Sable, Que 51/24N 66/12W

LOCALE: Lake water area

WEATHER: Wind SW 12 kt vis 15+ cloud 4000' scattered temp 13°C

PILOT: Private

TOTAL HOURS:	900	ALL TYPES	850	ON TYPE
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LAST 90 DAYS:	100	ALL TYPES	100	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 1 uninj.

OCCURRENCE: The pilot was attempting a landing in cross-wind conditions, when a gust lifted the left wing. The right wing tip and float contacted the water. He applied power and raised the nose. The tail then struck the water followed by the left float and left wing.

82-Q20077

Bell 47G4A

C-FHEL

DATE: 19 Oct 1982 1710 ADT

OPERATION: Charter

PLACE: Ste-Anne-des-Monts, Que 49/07N 66/32W

LOCALE: Uneven field in mountainous region

WEATHER: Wind W 11 kt vis 10+ sky overcast with drizzle temp 11°C

PILOT: Commercial Rotorcraft

TOTAL HOURS: 800 ALL TYPES 400 ON TYPE

LAST 90 DAYS: 159 ALL TYPES 159 ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 2 uninj.

OCCURRENCE: At height of 600 feet AGL, the engine backfired and stopped. The pilot autorotated into an open field and landed on the right float. Due to uneven terrain, the landing was hard.

Technical examination of the engine electrical system revealed that the left magneto had a drop of 200 rpm - however, this would not have caused the engine to stop. Weather conditions, though, were conducive to carburettor icing.

82-Q20078

Hughes 369 HS

C-GBTR

DATE: 23 Oct 1982 1600 EDT

OPERATION: Charter

PLACE: St Pierre de Wakefield Que 45/42N 75/43W

LOCALE: Lake water area 550' asl

WEATHER: Wind NW 10 kt vis 15+ sky clear temp 8°C

PILOT: Commercial Rotorcraft

TOTAL HOURS: 7100 ALL TYPES 2500 ON TYPE

LAST 90 DAYS: 100 ALL TYPES 50 ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 2 uninj.

OCCURRENCE: The pilot had climbed to a height of about 200 feet and set cruise power when the engine flamed out. He commenced an autorotation, and at the same time hit the starter switch to get a relight. As he flared about 10 feet above the water surface, the engine began to spool up; it was too late to recover and the aircraft struck the water on its right side and sank.

Technical examination of the engine components and related fuel system failed to reveal any failure or discrepancy that could have caused the power loss. (LP 372/82 and LP 380/82 refer)

82-Q20082

Cessna 172M

C-GUCU

DATE: 31 Oct 1982 1315 EST

OPERATION: Private recreation

PLACE: La Sarre Arpt Que 48/55N 79/10W

LOCALE: Gravel runway 4700' long 150' 1100' asl

WEATHER: Wind W 7 kt vis 15 cloud 23000' scattered temp 10°C

PILOT: Private

TOTAL HOURS:	69	ALL TYPES	57	ON TYPE
LAST 90 DAYS:	6	ALL TYPES	3	ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 1 minor 2 uninj.

OCCURRENCE: Shortly after lift off, the pilot noticed his airspeed had decreased and engine rpm had dropped to 2000. Unable to accelerate, he proceeded to land straight ahead in the area remaining. He overran the runway and came to a stop 300 feet past the end. It could not be determined what caused the loss of power.

82-Q20083

Schweizer SGU2-22CK

C-FZEG

DATE: 30 Oct 1982 1000 EST

OPERATION: Private training

PLACE: St Jean Que 45/18N 73/17W

LOCALE: Flat grass-covered area

WEATHER: Wind SSE 8 kt vis 15+ sky clear

PILOT: Glider

TOTAL HOURS:	16	ALL TYPES	3	ON TYPE
LAST 90 DAYS:	4	ALL TYPES	3	ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj.

OCCURRENCE: On completion of his exercise, the glider pilot returned to the airport and joined the circuit downwind. As he turned on to base leg, he misjudged the wind and the aircraft drifted too far from the landing area. He decided to land in the field bordering the airport. After touchdown, the aircraft rolled into a deep ditch approximately 100 feet from the landing area.

82-Q20085

Cessna 337F

C-GAUD

DATE: 20 Nov 1982 1930 EST

OPERATION: Recreational

PLACE: Sorel Airport, Que 45/57N 73/03W

LOCALE: Gravel runway 4000' by 75' 76' ASL

WEATHER: Wind calm vis 12 cloud 12000' overcast temp 8°C

PILOT: Airline Transport

TOTAL HOURS:	7500	ALL TYPES	50	ON TYPE
LAST 90 DAYS:	300	ALL TYPES	5	ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 serious

OCCURRENCE: During an IFR flight, the pilot had insufficient fuel to reach destination and had to land at an enroute airport to refuel. On descent, the rear engine stopped due to fuel exhaustion of the right main tank. The auxiliary tank was selected and the engine restarted for the landing. The left main tank supplying the front engine indicated less than one-quarter full. After landing, 10 imperial gallons were added to each of the two auxiliary tanks, sufficient to continue the flight to destination.

As the pilot prepared to depart, he selected main tanks to start the engine. The front engine was started, but he was unable to start the rear. He then left the aircraft to make a few phone calls during which time the front engine was running. He returned to the aircraft and after a period of 20 minutes he taxied for take-off. It could not be determined if the rear engine was operating. Witnesses who saw the take-off, reported an excessively long take-off roll, and a very shallow rate of climb; they finally lost sight of the machine, then heard the noise of the crash.

Technical examination at the site revealed that both propellers were in full fine pitch and were stopped before impact. Both fuel selectors were selected to main tanks, and each main tank contained less than one-quarter litre of fuel. All evidence suggested that the take-off was made solely on the front engine, and it failed due to fuel exhaustion of the left main tank. The engines were ground run at a test facility and both started and ran well. No engine discrepancies were found.

82-Q20086

Piper PA-38

C-GVXN

DATE: 22 Nov 1982 1300 EST

OPERATION: Private training

PLACE: Richelieu Arpt Que 45/27N 73/14W

LOCALE: Asphalt and grass runway 2800' by 75' 115' asl

WEATHER: Wind NE 10 kt vis 15+ cloud 9000' broken temp 7°C

PILOT: Private

TOTAL HOURS:	250	ALL TYPES	25	ON TYPE
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LAST 90 DAYS:	25	ALL TYPES	25	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj.

OCCURRENCE: The student was practising touch-and-go landings in crosswind conditions. When the aircraft swung left after touchdown, he applied harsh corrective action that caused left tire failure. On the subsequent touchdown, the aircraft swung violently to the left and the student was unable to prevent it from striking a drainage ditch some 40 feet from the runway.

82-Q20087

Cessna 150L

C-GOEH

DATE: 17 July 1982 1220 EDT

OPERATION: Private recreation

PLACE: Biencourt Que 47/58N 68/32W

LOCALE: Flat compacted private strip

WEATHER: Wind SW vis 10 cloud 2500 overcast temp 25°C

PILOT: Private

TOTAL HOURS:	60	ALL TYPES	6	ON TYPE
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LAST 90 DAYS:	6	ALL TYPES	6	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 1 uninj.

OCCURENCE: As the low-time pilot began to flare in light gusting winds, he let the aircraft drift to the right side of the strip. He decided to overshoot, but the tail struck a mound of rocks and dirt, followed by the nose wheel contacting the surface before the aircraft became airborne. He completed a circuit and landed safety.

82-Q20088

Piper J3C65

C-FBUF

DATE: 11 Dec 1982 1355 EST

OPERATION: Private training

PLACE: La Plaine Que 45/47N 73/48W

LOCALE: Tree-bordered snow-covered field

WEATHER: Wind W 10 kt vis 45 cloud 3500' scattered temp -10°C

PILOT: Private

TOTAL HOURS:	110	ALL TYPES	Unknown	ON TYPE
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LAST 90 DAYS:	Unknown	ALL TYPES	Unknown	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 1 uninj.

OCCURRENCE: After levelling off at 1000 feet ASL, the engine began to run rough. The pilot operated the throttle and applied carb heat with no appreciable change, so he decided to make a precautionary landing. The snow and ice-covered ground made braking impossible and the aircraft struck a fence and shrubs.

During a circuit prior to this flight, he had noticed that the cylinder head temperature was on the low side and he had to apply throttle to keep the engine running smoothly. A winter kit had been installed with pieces of tape across the two holes to control the amount of cold air flowing to the engine. The rough running engine was probably caused by the low cylinder head temperatures.

82-Q20802

Piper PA-12

C-FRRH

DATE: 28 Mar 1982 1600 EST

OPERATION: Private recreation

PLACE: Lac Paradis Que 49/04N 78/00W

LOCALE: Ice-covered lake

WEATHER: Wind W 13 kt vis 15+ sky clear temp 0°C

PILOT: Private

TOTAL HOURS:	277	ALL TYPES	168	ON TYPE
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LAST 90 DAYS:	15	ALL TYPES	15	ON TYPE
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DAMAGE: Minor

CASUALTIES: Crew: 1 uninj; pass: 1 uninj.

OCCURRENCE: After landing, the pilot taxied at a high speed toward the area where his friend's aircraft was parked. He misjudged the distance and realized he was taxiing too fast to avoid a collision. As he tried to turn, he struck the tail of the parked aircraft.

82-Q20902

Cessna 182K

N3031Q

DATE: 4 Aug 1982 2120 EDT

OPERATION: Private recreation

PLACE: St Georges de Beauce Arpt Que 46/06N 70/43W

LOCALE: Rolling grass-covered area

WEATHER: Wind light vis 15 cloud 12000 broken temp 19°C

PILOT: Private

TOTAL HOURS: 133 ALL TYPES 36 ON TYPE

LAST 90 DAYS: 17 ALL TYPES 17 ON TYPE

DAMAGE: Destroyed

CASUALTIES: Crew: 1 serious; pass: 2 fatal, 1 serious

OCCURRENCE: The pilot failed to check weather before take-off. Arriving at destination after dark, he encountered rain and fog patches with isolated thunderstorms. Though a NOTAM had been issued to advise airport lighting as unserviceable, the pilot entered the circuit and lined up for landing. Sometime just before touchdown, or after rolling a short distance, he carried out a missed approach; the aircraft entered a left turn followed by a steep descent, then struck the ground and burst into flame.

82-Q25001

Engoulevent Hang Glider

Not reg.

DATE: 3 Jul 1982 1730 EDT

OPERATION: Private recreation

PLACE: Mont Rougemont Que 45/26N 73/03W

LOCALE: Flat cultivated area

WEATHER: Wind N 8 kt vis 15 cloud 4800 scattered temp 19°C

PILOT: Not licensed

TOTAL HOURS: 1 ALL TYPES 1 ON TYPE

LAST 90 DAYS: 1 ALL TYPES 1 ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 fatal

OCCURRENCE: The Level I glider pilot was in a competition using his newly purchased hang glider. Witnesses stated that as he approached the target area at a height of 100 feet, he commenced a turn to the right to lose altitude. As he completed about 180° of the turn, his height was about 35 feet above the ground. He continued to turn while still descending. The right tip touched the surface and the glider nosed in. The pilot made no attempt to remove his legs from the kicker to cushion the landing.

82-Q25003

Skyseeker Ultra-Light

Not reg.

DATE: 4 Aug 1982 1145 EDT

OPERATION: Private recreation

PLACE: Riviere Nastapoka Que 56/50N 76/50W

LOCALE: River water area

WEATHER: Wind 13 kt cloud 1250' overcast temp 15°C

PILOT: Not licensed

TOTAL HOURS: 1:30 ALL TYPES 1:30 ON TYPE

LAST 90 DAYS: Unknown ALL TYPES Unknown ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 fatal

OCCURENCE: Shortly after take-off, at a height of about 50 feet, the engine backfired and stopped. The low-time pilot turned his motorized glider towards the shore, but had insufficient height to reach land. Witnesses reported that the aircraft stalled three times then nosed down towards the water. The pilot was unable to extricate himself from the harness and drowned before he could be rescued.

Witnesses also reported that the pilot had had problems with the engine earlier in the day caused by a fouled spark plug. It is believed that this may have caused the engine failure.

82-Q25006

Vector V-610 Ultra-light

None

DATE: 24 Oct 1982 1300 EDT

OPERATION: Private recreation

PLACE: St Isidore de Levis Que 46/35N 71/03W

LOCALE: Flat compact area 350' asl

WEATHER: Wind WSW 10 kt vis 40 sky clear temp 3°C

PILOT: Private

TOTAL HOURS:	94	ALL TYPES	25	ON TYPE
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LAST 90 DAYS:	9	ALL TYPES	9	ON TYPE
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DAMAGE: Destroyed

CASUALTIES: Crew: 1 fatal

OCCURENCE: During a recreational flight, the ultra-light was seen to commence a shallow turn which developed into a spiral. The outer section of the right wing failed, followed by failure of the remainder of the right wing and failure of the left wing.

Laboratory examination of the right wing structure indicated that initial failure was caused by torsional overloading of the front and rear spars; this in turn was due to excessive flight loads imposed during an attempted recovery from the spiral dive. (LP 364/82)

83-Q30003

Cessna 180

C-FKWW

DATE: 26 Jan 1983 1035 AST

OPERATION: Private recreation

PLACE: Grand Germain Lake Que 51/12N 66/38W

LOCALE: Snow-covered frozen lake

WEATHER: Wind calm vis 25 cloud 2500 broken temp -12°C

PILOT: Commercial

TOTAL HOURS:	3192	ALL TYPES	200	ON TYPE
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LAST 90 DAYS:	20	ALL TYPES	20	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 2 uninj.

OCCURRENCE: The pilot landed the aircraft on a snow-covered frozen lake. He reported trying to turn left nearing taxi speed, but the aircraft did not respond; he then applied power, the aircraft skidded and the right ski contacted a concealed ice mound. The ski bracket failed causing the right wing and propeller to contact the surface.

83-Q30004

Hughes 369D

C-GUMA

DATE: 13 Feb 1983 1435 EST

OPERATION: Private recreation

PLACE: Ste Anne de la Perade Que 46/33N 72/13W

LOCALE: Snow-covered frozen river

WEATHER: Wind WSW 5 kt vis 12 sky clear temp -9°C

PILOT: Private

TOTAL HOURS:	620	ALL TYPES	500	ON TYPE
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LAST 90 DAYS:	30	ALL TYPES	30	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 serious

OCCURRENCE: Enroute to his destination, the pilot deviated from his flight path to check some fishing huts a short distance away. He commenced his approach at an airspeed of 60 mph and a rate of descent between 400-500 fpm. As he approached the ice surface, the right front skid strut contacted an electrical wire spanning the river. The wire was at 90 degrees to his flight path and 45 feet agl.

The pilot applied aft cyclic to stop the forward movement, but in the process, a main rotor blade struck the wire and separated, initiating a sequence of main rotor imbalance; the helicopter fell to the surface and was substantially damaged.

83-Q30017

Cessna 140

CF-DCI

DATE: 2 Apr 1983 1404 EST

OPERATION: Private recreation

PLACE: Baie Comeau Arpt Que 49/08N 68/22W

LOCALE: Flat snow-covered area 1700' by 50' 71' asl

WEATHER: Wind ESE 14 kt vis 30 sky clear temp 0°C

PILOT: Private

TOTAL HOURS:	150	ALL TYPES	50	ON TYPE
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LAST 90 DAYS:	Unknown	ALL TYPES	Unknown	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj.

OCCURRENCE: As the pilot was turning to the left in preparation for take-off, the right main gear folded. The bolt retaining the gear to the fuselage attachment point had failed. The cause of the failure was not determined.

DATE: 8 Aug 1983 0430 EDT

OPERATION: Charter

PLACE: Kangirsuk Que 60/01N 70/00W

LOCALE: Gravel runway 1400' long 150' asl

WEATHER: Wind ENE 10 kt vis 4 cloud 600' scattered temp 1°C

PILOT: Airline Transport licence

TOTAL HOURS: 5000 ALL TYPES 1500 ON TYPE

LAST 90 DAYS: 300 ALL TYPES 150 ON TYPE

DAMAGE: Minor

CASUALTIES: Crew: 1 uninj; pass: 5 uninj.

OCCURRENCE: Immediately after landing on a short gravel runway, the nose gear collapsed. The investigation revealed that the piston rod end had failed in a bending moment resulting from overload. The lack of other damage to the nose gear and well, suggested that the nose gear was not locked in the down position. The pilot reported that the three green lights were illuminated; in addition, he had visually checked that the nose gear was extended.

82-W25006

Birdman No 1 Ultralight

None

DATE: 16 Sep 1982 1030 MDT

OPERATION: Private business

PLACE: 1 mi E of Chipman Alt 53/42N 112/37W

LOCALE: Flat swampy area

WEATHER: Wind calm vis 15+ sky clear temp 10°C

PILOT: Student

TOTAL HOURS: 58 ALL TYPES 1 ON TYPE

LAST 90 DAYS: 8 ALL TYPES 1 ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 fatal

OCCURRENCE: During a test flight the ultralight's left rear spar strap failed. The wings folded and the aircraft dove into the ground.

Inadequate design coupled with poor construction technique were the primary causes of the failure.

82-W25009

Birdman Atlas Ultralight

None

DATE: 23 Sep 1982 0900 MDT

OPERATION: Private recreation

PLACE: near Edmonton Alt 53/30N 113/40W

LOCALE: Cultivated field 2200' asl

WEATHER: Wind SW 3 kts vis 15+ sky clear temp 10°C

PILOT: Unlicensed

TOTAL HOURS: 30 ALL TYPES 30 ON TYPE

LAST 90 DAYS: 5 ALL TYPES 5 ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 serious

OCCURRENCE: As the pilot was descending through about 90 feet agl he heard a loud bang and the aircraft dove straight down. He also believed the engine was running away as though the propeller load had been removed. The aircraft crashed into an open field.

There was no indication of in-flight propeller break-up and the apparent high rpm could not be explained. Also, there was no evidence that the aircraft failed structurally while airborne.

When he first purchased the ultra-light, the pilot found that it tended to climb during flight. To counteract this motion he added additional weight to the forward end of the last tube. The addition of these weights would have solved the initial problem but would have also introduced other problems which may have affected his ability to control the aircraft through weight shifting.

The possibility exists that during manoeuvres at low level the aircraft became uncontrollable as a result of the additional weights. The pilot was then unable to control the aircraft by altering his body-weight input.

83-W30003

Fleet 80

CF-DZO

DATE: 30 Jan 1983 1100 MST

OPERATION: Private recreation

PLACE: Camrose Alt 53/02N 112/49W

LOCALE: Flat snow-covered area 2424' asl

WEATHER: Wind calm vis 1 cloud 200' obscured temp -10°C

PILOT: Private

TOTAL HOURS:	195	ALL TYPES	70	ON TYPE
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LAST 90 DAYS:	10	ALL TYPES	10	ON TYPE
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DAMAGE: Destroyed

CASUALTIES: Crew: 1 serious

OCCURRENCE: Several witnesses watched the pilot taxi out to a snow-covered area to the right side of the runway, and take-off. They noticed that the aircraft generated a visible fog path behind it, then disappeared into a fog layer shortly after lift-off. Moments later, a passing motorist found the aircraft wreckage one mile from the airport.

It's probable the pilot unexpectedly found himself in the low fog layer after take-off. Rime ice would have built up on the windscreen further reducing forward visibility. Apparently he attempted to fly a circuit by turning left into the downwind; this brought the aircraft to the accident site. During this part of the flight, the pilot was probably able to maintain vertical visibility out the side window. It seems that just prior to impact, the aircraft passed over a bush area (which provided good contrast), and continued over a large snow-covered field. The pilot, on losing all references in the ensuing whiteout, became disoriented and entered a descending right turn and impacted the frozen ground at high speed.

DATE: 4 Apr 1983 1400 MST

OPERATION: Private recreation

PLACE: 2 mi N of Okatoks Alt 50/45N 113/57W

LOCALE: Flat tree-covered area 3600' asl

WEATHER: Wind SSW 5 kt vis 15+ cloud 6000' scattered temp 16°C

PILOT: Private

TOTAL HOURS:	163	ALL TYPES	81	ON TYPE
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LAST 90 DAYS:	23	ALL TYPES	23	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 minor; pass: 1 serious, 1 uninj.

OCCURRENCE: The pilot planned a VFR flight from Cranbrook to Calgary. He checked the weather and the forecast indicated that it would be suitable enroute, except for a few localized showers.

About half-way to destination, deteriorating weather was encountered and the pilot was forced to turn back. At Eisenhower Junction, the weather cleared and he climbed to 11,000 feet and continued on. He turned back a second time, reached improved weather then climbed to 12,000 feet and set course for destination.

After some time with partial visual contact with the ground, the flight eventually was in continuous cloud and the pilot became unsure of his position. He then requested assistance from Air Traffic Services.

The pilot was able to communicate with ground facilities, but the aircraft was not equipped with a transponder and there was some difficulty in getting radar returns from the aircraft to confirm a position. Initially VHF/DF homing procedures were used to give the pilot heading information, and shortly after that, the aircraft came within radar range.

The pilot was vectored to a nearby VFR area due to fuel problems. Suddenly, the engine stopped from fuel exhaustion and the pilot made a forced landing in a clump of heavy willow bushes.

There was a suitable landing field near Eisenhower Junction but there were no fuel facilities there. In addition, a stop would have necessitated some delay. The pilot was faced with either this or returning to Cranbrook when he met with poor weather.

The inexperienced pilot did not appreciate the weather, navigation and in-flight problems related to mountain flying. In addition, the two climbs used up considerable fuel and decreased endurance.

During radar contact, the controllers at Calgary provided valuable assistance to the pilot in getting him to a safe descent area. However, just before the fuel was exhausted there was some confusion among the controllers as to the identification of the particular landing field the aircraft was being vectored to. Consequently, the pilot received unreliable information because 6 airfields in the area had similar names.

83-W30015

Cessna 170 B

C-GNCM

DATE: 12 May 1983 1830 MDT

OPERATION: Private recreation

PLACE: Airdrie Arpt Alt 51/16N 113/56W

LOCALE: Grass runway 2900' by 100' 3561' asl

WEATHER: Wind E 2 kt vis 15+ sky clear temp 10° C

PILOT: Private

TOTAL HOURS: 170 ALL TYPES 12 ON TYPE

LAST 90 DAYS: 10 ALL TYPES 2 ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 2 uninj.

OCCURRENCE: The pilot had just finished a twelve hour check-out on tail wheel aircraft, which had been spread over several months. This was his first solo experience on tail wheel aircraft. On his second landing, he lost directional control. As a ground loop developed, the right gear folded under.

83-W30017

Cessna 337A

CF-CDF

DATE: 18 May 1983 0810 MDT

OPERATION: Private recreation

PLACE: 5 NM SW of Abraham Lake Alt 51/59N 116/51W

LOCALE: Tree-covered mountainous area 5000' asl

WEATHER: Wind variable 11 G 35 kt vis 0 sky obscured in fog temp -3° C

PILOT: Private

TOTAL HOURS: 350 ALL TYPES 80 ON TYPE

LAST 90 DAYS: 40 ALL TYPES 40 ON TYPE

DAMAGE: Destroyed

CASUALTIES: Crew: 1 fatal; pass: 3 fatal

OCCURRENCE: While on a VFR flight from Edmonton to Victoria, the aircraft crashed into mountainous terrain near Rocky Mountain House.

Prior to commencing the flight, the pilot received a weather briefing which indicated extensive convection cloud and showers along his intended route. He was advised to fly an alternative route farther to the north, where the weather was more suitable.

Despite his knowledge of the weather conditions, the pilot flew the original route. Entering the mountains near Rocky Mountain House, he reported he was at 9,500 ft climbing to 10,000 ft. Less than ten minutes later, the aircraft crashed into the side of a wide mountain valley at 5,000 ft. The impact attitude of the aircraft was indicative of a stall and possible spin; there was no evidence of any pre-impact mechanical fault.

The weather at the time of the accident was such that it is likely the pilot found himself in, or about to enter, cloud at 10,000 ft. A witness described extensive snow showers with reduced visibility during and after the accident. Terrain on both sides of the route would have left the pilot with no alternative but to reverse course upon encountering cloud. It is probable that during his attempts to avoid flight in IMC, the aircraft stalled and spun through 5,000 ft and struck the ground.

The pilot was not IFR qualified and lacked significant mountain experience. He had twice flown this particular route with an instructor. It is likely these previous trips influenced his decision to not fly the other unfamiliar route although the weather along it was more suitable for VFR flight. It is evident that the pilot attempted a flight that was beyond his level of experience and ability.

83-W30020

Cessna 180

C-FNOX

DATE: 3 Jun 1983 2035 PST

OPERATION: Private recreation

PLACE: 92 mi SW of Fort Nelson BC 58/06N 124/51W

LOCALE: Rocky mountainous area 6400' asl

WEATHER: Turbulence rain and snow showers

PILOT: Private licence

TOTAL HOURS:	56	ALL TYPES	18	ON TYPE
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LAST 90 DAYS:	56	ALL TYPES	18	ON TYPE
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DAMAGE: Destroyed

CASUALTIES: Crew: 1 fatal; pass: 3 fatal.

OCCURRENCE: The pilot and 3 passengers departed Fort St. John in his recently purchased aircraft for a fishing trip. The fully loaded aircraft struck a vertical rock face in a mountain pass in a 45 degree left bank. Although the pilot did not file a flight plan, he had informed his parents and on departure, transmitted his routing to Fort St. John FSS. The parents reported the aircraft missing 3 days later, and 8 days after the accident, a search located the wreckage. All occupants had died as a result of the impact forces.

Although the pilot had been informed of poor weather along his route, he decided to proceed. In addition, he took off with a map that did not give detailed topographic information. There are 2 passes through the mountainous terrain - one has a maximum height of 6300 ft and the other 5700 ft asl. The latter is normally used due to the lower altitude. It is believed the pilot turned into the higher pass by mistake and encountered poor weather which he tried to avoid by turning back. He had completed 90 percent of the turn when he struck the rock face.

The pilot had completed his private pilot training two months previous, then bought an aircraft. At the time of the accident, he had 18 hours on type, no mountain flying training, or experience flying this type aircraft at or near maximum weight. The aircraft departed Fort St. John with two known unserviceabilities - the artificial horizon was not functioning and the ELT had time-expired batteries; an ELT signal would likely have shortened the search.

A quantity of marijuana (which tests determined the pilot had used at least a few days before the accident) was found in the wreckage. It could not be determined if the pilot was mentally or physically impaired by the long or short term effects of the drug.

83-W30021

Cessna 150L

CF-LOM

DATE: 8 Jun 1983 2000 PDT

OPERATION: Private recreation

PLACE: Montney BC 56/31N 120/57W

LOCALE: Grass runway 1800' by 50' 2590' asl

WEATHER: Wind WNW 4 kt vis 15+ cloud 6500' scattered temp 16°C

PILOT: Private

TOTAL HOURS: 267 ALL TYPES 50 ON TYPE

LAST 90 DAYS: 5 ALL TYPES 5 ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 1 uninj.

OCCURRENCE: The aircraft was low so the pilot added power to clear the 25 foot high power lines straddling the approach to the strip. Touchdown was made 750 feet down the runway, first with one wheel then the other. He was unable to stop the aircraft as it angled off into the ploughed field beside the strip and nosed over.

Neither the runway nor the 5 knot cross-wind were considered as factors in the accident. Apparently the pilot was unable to maintain directional control, given his limited experience on type.

83-W30023

Cessna TU206F

C-GCJD

DATE: 12 Jun 1983 0730 PDT

OPERATION: Private other - search

PLACE: Gataga River BC 58/09N 125/13W

LOCALE: Grass and gravel strip 2000' by 15' 3200' ASL

WEATHER: Wind calm vis 15+ sky clear temp 15°C

PILOT: Commercial

TOTAL HOURS: 1800 ALL TYPES 1600 ON TYPE

LAST 90 DAYS: 27 ALL TYPES 27 ON TYPE

DAMAGE: Destroyed

CASUALTIES: Crew: 1 uninj.

OCCURRENCE: The pilot had landed at an isolated aerodrome to inspect a fuel cache.

When he attempted to start the engine in preparation for departure, it would not start. The battery was soon depleted so he decided to hand prop the engine. After several attempts at hand-propping he decided the engine was flooded and moved the throttle to the full open position. He then hand propped backwards to unload the engine, followed by hand propping forward. The engine started after one compression stroke forward, and RPM increased until the engine was operating at full power. The startled pilot jumped backwards, fell down and was run over by the aircraft. It accelerated rapidly, became airborne and climbed to about 1500 ft AGL. It then commenced a gradual descending turn and crashed into the side of a mountain. After a 12 hour wait the pilot was rescued by a Search and Rescue crew who were involved in the search for another missing aircraft.

The pilot reported he had set the parking brake before attempting to start the aircraft. It is likely it was inadvertently released during the pilot's repeated entry and exit of the aircraft during his attempts to start the aircraft. It is also apparent that the pilot did not take adequate measures to ensure that the aircraft was properly secured for hand propping. The pilot's actions were influenced by his concern that he was overdue on his planned ETA at his base of operations.

83-W30024

Aeronca 7DC

C-FGAN

DATE: 12 Jun 1983 1600 MDT

OPERATION: Private recreation

PLACE: 4 mi SW of Bassano Alt 50/43N 112/33W

LOCALE: Hilly area 2775' asl

WEATHER: Wind NW 20 g 30 kt vis 25+ sky broken temp 18°C

PILOT: Private

TOTAL HOURS:	400	ALL TYPES	60	ON TYPE
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LAST 90 DAYS:	30	ALL TYPES	30	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 serious; pass: 1 fatal

OCCURRENCE: Witnesses fishing on the riverbank were the first to hear the aircraft approaching. Sounds like gunshots or engine backfires were also audible. The aircraft came into view, and was low over the water as it rounded a bend in the river upstream. They watched it make a climbing right turn out of the river valley, reverse heading and crash behind trees against a hill on the opposite side of the river.

The pilot and owner reported the aircraft fully servicable for the flight. The engine was at high power when the left wing struck the side of the hill. In a near level attitude, the aircraft then slewed around and stopped at the base of the hill within 25 feet of the initial impact point. The airspeed indicator was found reading 76 mph.

The actual manoeuvres and the reason for the crash could not be determined; however, a gusting wind flow down the hills near the crash site, may have made flight hazardous. One of the aircraft doors had been removed to improve ventilation, but it could not be determined how this may have affected the flight. Also, the pilot's attention may have been diverted by a deer in the trees beside the river.

Both the pilot and his passenger were known to spot and hunt game from the air, this would necessitate flying at a low level. A loaded shotgun with several new and spent cartridges was found in the rear cockpit. The pilot said the gun was carried for protection from rustlers; he also stated that he remembers nothing as a result of his injuries.

83-W30027

Piper PA24-250

CF-QJK

DATE: 26 Jun 1983 1645 MDT

OPERATION: Private recreation

PLACE: Thurston Lake Alt 59/57N 118/11W

LOCALE: Dirt strip 3000' by 20' 2000' asl

WEATHER: Wind e 7 kt vis 15 sky clear temp 23°C

PILOT: Private

TOTAL HOURS: 140 ALL TYPES 70 ON TYPE

LAST 90 DAYS: 12 ALL TYPES 12 ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 2 uninj.

OCCURRENCE: Shortly after touchdown on a rough strip, the left main gear scissors failed permitting the left wheel to turn sideways. The high drag caused the aircraft to swing to the left; this imposed high side loads on the right gear causing the right sway brace stud assembly to fail, permitting the gear to fold into the well. Laboratory examination revealed that all the fractured parts were characteristic of overload failure. (LP 354/83 and LP 259/83)

83-W30030

Bellanca 7GCBC

C-GECP

DATE: 17 Jul 1983 1555 MDT

OPERATION: Private - other - glider tow

PLACE: Claresholm Alt 50/00N 113/38W

LOCALE: Paved runway 3100' by 100' 3525' ASL

WEATHER: Wind calm vis 15+ sky clear temp 25°C

PILOT: Private

TOTAL HOURS: 600 ALL TYPES 400 ON TYPE

LAST 90 DAYS: 20 ALL TYPES 20 ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 1 uninj.

OCCURRENCE: The aircraft was being used as a tow plane for glider launching. On this particular launch, when the glider became airborne, it began to weave left and right and undulate up and down. The glider's erratic movements continued as the tow aircraft became airborne; the glider then climbed rapidly forcing the tow aircraft into a steep nose-down attitude. The pilot of the glider released the tow, but the pilot of the tow aircraft was unable to recover before his aircraft struck the ground heavily. On impact, a fire broke out, but was quickly extinguished. The glider landed in an adjacent field without further incident.

The glider pilot had very little experience with tow launches; almost all his gliding had been done using a winch and his only solo tow launch had been made two years previous. The tow launch is a more difficult manoeuvre requiring different handling techniques. With his lack of related experience, he was unable to properly control the glider during the tow.

DATE: 18 Jul 1983 2155 MDT

OPERATION: Private recreation

PLACE: 6 mi SE of Airdrie Alt 51/16N 113/56W

LOCALE: Flat cultivated field 3600' ASL

WEATHER: Wind SE 8KT vis 15+ sky clear

PILOT: Private and Free Balloon

TOTAL HOURS:	430	ALL TYPES	180	ON TYPE
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LAST 90 DAYS:	38	ALL TYPES	37	ON TYPE
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DAMAGE: Minor

CASUALTIES: Crew: 1 minor; pass: 2 serious

OCCURRENCE: The pilot was landing his balloon in a fallowed field after a 1 hour and 15 minute flight. Approaching the field, at about 60 feet agl, he vented air and the descent rate increased. Simultaneously the pilot light extinguished and the pilot was unable to light the burner. The gondola struck the ground hard and the balloon dragged along a barbed wire fence. The pilot exited the basket just before impact, but his two passengers were dragged with the gondola and received numerous lacerations from the barbed wire.

Venting air when on approach above 50 ft agl is not a standard approach technique. This procedure significantly increases the rate of descent and may blow out the pilot light. In this case, the procedure led to the uncontrolled landing. It was also apparent that the pilot did not adequately brief the passengers on proper exit procedures.

83-W30033

Glaser Dirks G 100 (glider)

C-GUID

DATE: 22 Jul 1983 1630 MDT

OPERATION: Private training

PLACE: Airdrie Alt 51/16N 113/56W

LOCALE: Paved runway 2900' by 100' 3648' ASL

WEATHER: Wind ESE 8 kt vis 15+ sky clear temp 25°C

PILOT: Student glider

TOTAL HOURS:	52	ALL TYPES	0	ON TYPE
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LAST 90 DAYS:	4	ALL TYPES	0	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 minor

OCCURRENCE: During the launch, the glider became airborne and was dragged by the tow aircraft in a nose-high attitude. After veering from side to side and pitching up and down, it climbed to a height of about 60 feet, rolled to the right and dove into the ground. The tow line broke and the tow aircraft pilot rejected his take-off.

This aircraft is a single seat, high performance glider with retractable landing gear and upper wing spoilers. For a normal launch, the elevator trim is set about $\frac{1}{2}$ inch aft of full nose-down. Recommended lift-off speed is 70-80 km/hr. The spoilers are supposed to be stowed and locked, but were in the deployed position. It could not be determined if they had extended before impact.

The pilot's experience was limited to gliders used for training and his student licence had expired 22 days previously; he was not familiar with the Operating Manual (which was available to him) and did not know many of the recommended techniques; he forgot to check if the spoilers were stowed and locked before take-off; he was not aware of the proper position for take-off trim, and left it at the setting from the previous flight; the pilot did not refer to the airspeed indicator during the launch and was not aware of the recommended lift-off speed; he believed the airspeed indicator was calibrated in knots but it was actually calibrated in kilometers per hour.

The pilot had no experience on high performance gliders and allowed the aircraft to become airborne prematurely. He did not have the required knowledge and training to safely conduct the flight.

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synopses
of
AIRCRAFT ACCIDENTS
-civil aircraft in Canada



AVIATION SAFETY INVESTIGATION DIVISION
AVIATION SAFETY BUREAU

Issue 4

1984

IMPORTANT NOTICE

This is the last report of accident synopses in the present form. As of October 1984, the Aviation Safety Bureau of Transport Canada ceased to exist, and investigation and report production became the responsibility of the Canadian Aviation Safety Board (CASB). This document covers the transition period and contains synopses of occurrences for which the investigation by Transport Canada was at or near completion at the time the CASB was formed.

In order to assess the needs of users, the CASB is in the process of updating the mailing list transferred from Transport Canada and requires your response to the following questions: (Please mail to the Canadian Aviation Safety Board, P.O. Box 9120, Alta Vista Terminal, Ottawa, Ontario K1G 3T8).

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ERRATA

NOPSES OF AIRCRAFT ACCIDENTS - CIVIL AIRCRAFT IN CANADA
SUE 4, 1984

PAGE A, PARAGRAPH 1, LINE 1, SHOULD READ

"The Aviation Safety Investigation Division -
an agency of Transport Canada - **prepared**
this publication"

PAGE B, PARAGRAPH 4, LINE 1, SHOULD READ

"This number identifies the occurrence:
any queries to the **Canadian Aviation**
Safety Board should carry this reference."

SYNOPSSES OF ACCIDENTS

The Aviation Safety Investigation Division - an agency of Transport Canada – prepares this publication from preliminary information stored in electronic data processing equipment. This system uses abbreviations and short narratives; a guide to the synopsis form is on the following page.

Your attention is drawn to the fact that the prime intent of this publication is the dissemination of aircraft accident information to promote the prevention of recurrence. Often, interested parties employ this information for purposes other than this, and in doing so, find the information incomplete or delayed. Such persons should be aware that investigations are for the benefit of Government agencies and the aviation community in their attempt to promote aviation safety.

This publication is also
available in French.

Cette publication est également
disponible en version française.

A limited number of copies of this publication are
retained and are available from:

On peut obtenir des exemplaires de la présente
publication en nombre limité auprès de
l'organisme suivant:

Canadian Aviation Safety Board
P.O. Box 9120
Alta Vista Terminal
Ottawa, Ontario
K1G 3T8

Bureau canadien de la sécurité aérienne
B.P. 9120
Terminal d'Alta Vista
Ottawa, Ontario
K1G 3T8

This publication contains synopses of aircraft occurrences in Canada to Canadian and foreign registered aircraft, and Canadian registered aircraft having accidents in foreign countries. Aircraft of Canadian registry having an accident in the United States are reported in a similar document "Aircraft Accident Reports – Brief Format" published by the U.S. Bureau of Aviation Safety of the National Transportation Safety Board. Copies are available from:

U.S. Department of Commerce
National Technical Information Service
Springfield, Va. 22161

EXPLANATORY NOTES

Definition of "Accident"

"Aircraft accident", means an occurrence associated with the operation of an aircraft that takes place between the time the person boards the aircraft with the intention of flight until such time as all persons have disembarked in which:

- (a) any person suffers death or serious injury as a result of being in or upon the aircraft or by direct contact with the aircraft or anything attached thereto; or
- (b) the aircraft receives substantial damage or is destroyed.

(Air Regulations, Part 1, Section 101).

Accident Report Number

This number identifies the occurrence; any queries to Transport Canada should carry this reference. The first letter denotes the Region of responsibility; usually this is the Region of occurrence. The first numeral is the year number in each decade; for example, 1970 appears as a zero, 1971 as 1, and so on. Accidents other than collisions and occurrences to foreign aircraft will be numbered from 001-799 for each year. Accidents involving a collision between two or more aircraft in flight or preparing for flight will be assigned to each aircraft involved. Accidents in Canada to foreign registered aircraft will be assigned numbers from 901-999.

Aircraft Make and Model

The top line of the report contains the type of aircraft involved a brief description of this aircraft, and under "Reg" the registration letters.

Operation

The categories used are those in the Canadian Transport Commission's Directory of Canadian Commercial Air Services.

Damage

One of the definition criteria for "accident" is degree of damage. "Substantial" damage means damage or structural failure that adversely affects the structural strength, performance or flight characteristics of an aircraft and that would normally require major repair or replacement of the affected component, except that engine failure, damage limited to an engine, bent fairings or cowlings, dented skin, small punctured holes in the skin or fabric, damage to propeller blades, damage to tires, engine accessories, brakes or wingtips are not deemed to be substantial damage.

(Air Navigation Order, Series VIII, No.1).

Place

Appearing first is the nearest gazetted place followed by the latitude and longitude.

Locale

The pertinent terrain, landing surface, and obstructions. Terrain/ airfield altitude is given in feet above sea level (asl). Dimensions are in feet.

Weather

The basic statement includes phenomena at the time and location of the occurrence. Although plain language is used as much as possible some codification may be necessary. The local weather office will be able to answer enquiries on the abbreviations which are too numerous to list here. Sky condition is given in feet above ground, visibility (vis) in miles, temperatures in degrees Celsius unless otherwise noted, wind direction at the nearest cardinal compass point and the windspeed in miles per hour.

Pilot

The licence category is given first, followed by the experience of the pilot-in-command. Blanks signify information not available.

Casualties

Degree of severity is described by the words: killed, serious, minor uninjured (uninj). Individuals are identified as either crew, passengers (pass), or if neither of these two categories, identification of the individual will be given in the narrative. Note that uninjured persons are included in casualties to establish the number of persons involved in the occurrence.

Description of the Occurrence

A brief narrative contains only the elements essential to an understanding of the occurrence, formal assignment of cause(s) is not included.

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83-A30010

Rockwell S2R18

CF-BEJ

DATE: 24 Jun 1983 1320 ADT
OPERATION: Private business
PLACE: Otter Brook NB 46/40N 66/51W
LOCALE: Tree-bordered logging road
WEATHER: Not significant
PILOT: Airline Transport
TOTAL HOURS: 5000 ALL TYPES 250 ON TYPE
LAST 90 DAYS: 127 ALL TYPES unknown ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj.
OCCURRENCE: The pilot had just unloaded retardant on a fire; when he applied power, the engine failed to respond except in surges. He declared an emergency and landed on an old logging road. The aircraft was almost stopped when the left wing caught a small tree causing it to veer off the road; it ran over some logs and boulders, went up on its nose and fell back to an upright position.

The engine trouble was caused by a split in the number seven cylinder head between the spark plug holes. It was determined that the crack originated near the exhaust port as a result of thermal stresses over a long period. (LP 362/83).

83-A30012

Cessna 185F

C-GJHF

DATE: 1 Jul 1983 1950 ADT
OPERATION: Charter
PLACE: 61/2 mi NW of Wabush Arpt Nfl 52/59N 66/59W
LOCALE: Tree-covered mountains 2400' ASL
WEATHER: 200 ft OVC vis 3/4 mi rain and fog
PILOT: Commercial
TOTAL HOURS: 5657 ALL TYPES unknown ON TYPE
LAST 90 DAYS: 57 ALL TYPES 57 ON TYPE
DAMAGE: Destroyed
CASUALTIES: Crew: 1 fatal
OCCURRENCE: The aircraft was on a charter flight delivering supplies to a sport fishing camp. Poor weather delayed the departure until early evening when the pilot considered the weather suitable.

A float-equipped aircraft resembling the accident aircraft was observed descending out of low cloud and heavy rain about 1/2 mile from the accident site. The craft then disappeared from sight followed by the sound of an engine roar and crash; it had impacted the side of a hill during a near vertical descent while under high power.

Forensic examination revealed the level of carbon monoxide in the pilot's system at impact was 49 per cent. This level is considered fatal.

The destruction of the aircraft forward structure made it impossible to determine how the pilot received the carbon monoxide poisoning.

83-A30017

Piper PA25-235

C-GMNH

DATE: 4 Aug 1983 1840 ADT
OPERATION: Specialty application
PLACE: Malpeque Bay PEI 46/32N 63/43W
LOCALE: Glassy water area at sea level
WEATHER: Wind calm vis 15+ sky clear temp 23°C
PILOT: Commercial
TOTAL HOURS: 4500 ALL TYPES 250 ON TYPE

LAST 90 DAYS:	100	ALL TYPES	100	ON TYPE
DAMAGE:	Substantial			
CASUALTIES:	Crew: 1 uninj.			
OCCURRENCE:	The aircraft was in a low level turn over the ocean while on a spray run. When the engine failed, the pilot made a forced landing in the water and the aircraft sank.			

The upset end on the impulse coupling flyweight axle in the left magneto failed. This led to the failure of the flyweight, which in turn jammed the magneto and caused failure of the accessory drive gears. The impulse coupling flyweight axle failed due to intergranular cracks formed during manufacture.

83-A30019	Mong Sport	C-GPOU
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DATE:	7 Aug 1983 1115 ADT			
OPERATION:	Private recreation			
PLACE:	Brockway NB 45/31N 67/06W			
LOCALE:	Rolling swampy area 200' asl			
WEATHER:	Wind NNW 10 kt vis 15 sky clear temp 25°C			
PILOT:	Commercial			
TOTAL HOURS:	537	ALL TYPES	1	ON TYPE
LAST 90 DAYS:	207	ALL TYPES	1	ON TYPE
DAMAGE:	Substantial			
CASUALTIES:	Crew: 1 fatal			
OCCURRENCE:	The pilot borrowed the homebuilt aircraft for a local pleasure flight; it was only his second flight on type. After completing some turns at approximately 1500 feet agl, the aircraft was observed descending to approximately 100-200 feet agl. During one manoeuvre the aircraft struck the ground in a 20 to 30 degree nose down attitude.			

From eyewitness reports, it was apparent that the pilot attempted a roll at low altitude. When the aircraft completed approximately 90 to 120 degrees of the roll, it began to descend. At this point, it appeared the pilot attempted to roll back to wings level, but the descent continued until impact.

Examination of the wreckage failed to reveal any pre-impact failure or engine malfunction. All flight control cables were intact, and all control surfaces accounted for. The investigation concluded that the pilot was attempting a display of flight manoeuvres for which he had neither the training nor experience.

During the investigation it was noted that the pilot's seat lap belt was anchored to the aft seat support legs, not to the vertical structural tubing as indicated on the aircraft construction drawings. If the lap belt had been properly anchored, the crashworthiness of the restraint system may have been improved.

83-A30020	Enstrom 280C	C-GPUU
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DATE:	14 Aug 1983 1230 ADT			
OPERATION:	Charter			
PLACE:	30 mi SW of Hopedale NFL 54/39N 60/59W			
LOCALE:	Small pond bordered by tree-covered hills			
WEATHER:	Wind WSW 15G25 kt vis 15+ cloud 3000' BKN			
PILOT:	Commercial Rotorcraft			
TOTAL HOURS:	1100	ALL TYPES	950	ON TYPE
LAST 90 DAYS:	50	ALL TYPES	45	ON TYPE
DAMAGE:	Substantial			
CASUALTIES:	Crew: 1 uninj; pass: 2 uninj.			
OCCURRENCE:	Wishing to drop off two passengers, the pilot set up an approach beside a small pond. Winds were moderately strong and gusting and after he completed the approach and started to air taxi back to the selected site, a gust of wind swung the tail into trees along			

the shore. Though he still was in control of the helicopter, he believed that the tail rotor was damaged, so he set down in about 4 feet of water. Subsequent inspection revealed strike marks on the tail rotor.

83-A30024

Piper PA-31

C-GQAD

DATE: 26 Aug 1983 1052 ADT
OPERATION: Regular Specific Point
PLACE: Fredericton Arpt NB 45/52N 66/32W
LOCALE: Paved runway 5100' by 200' 67' asl
WEATHER: Wind SSW 15 G 20 kt vis 15 cloud 30000 broken temp 19°C
PILOT: Commercial
TOTAL HOURS: 3000 ALL TYPES 200 ON TYPE
LAST 90 DAYS: 300 ALL TYPES 50 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj; pass: 6 uninj.
OCCURRENCE: Upon arrival at destination, the pilot was cleared for a right hand visual approach to the runway. The wind was gusting from the left at 20 knots. He flew a tight right base to final approach and selected the gear down. To compensate for the cross-wind, the pilot maintained a little extra power and as he reduced power for the flare, he and his passengers heard a warning horn. Shortly after touchdown the right main gear collapsed; the aircraft veered off the runway to the right, turned through 150 degrees and came to a stop with all three wheels retracted.

Technical investigation determined the landing gear extension/ retraction system was completely serviceable. Evidently the gear was selected down with insufficient time for it to fully extend before touchdown. The partially extended gear retracted into its housing due to the weight of the aircraft as it skidded to a stop.

83-A30028

DeHavilland

DHC-3 C-FEYO

DATE: 27 Sep 1983 1045 ADT
OPERATION: Charter
PLACE: Forteau Pond Lab Nfl 51/30N 56/58W
LOCALE: Water area 4500' by 2700' ASL
WEATHER: Wind SSW 15 vis 10 cloud 1500 ovc temp 12°C
PILOT: Commercial
TOTAL HOURS: 2300 ALL TYPES 350 ON TYPE
LAST 90 DAYS: 275 ALL TYPES 275 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj; pass: 6 uninj.
OCCURRENCE: Just after lift-off, the aircraft was forced back down to the surface of the lake due to gusting winds and downdrafts. With not enough space to stop, the aircraft ran up onto the shore. The aircraft was overloaded by about 517 lbs.

83-A30029

Cessna A185F

C-GJBM

DATE: 28 Sep 1983 1000 ADT
OPERATION: Private business
PLACE: Mealy Mountains Lab Nfl 53/32N 58/47W
LOCALE: Lake water area 1800' ASL
WEATHER: Sky broken with snow showers
PILOT: Airline Transport
TOTAL HOURS: 4000 ALL TYPES 5000 ON TYPE
LAST 90 DAYS: 140 ALL TYPES 140 ON TYPE
DAMAGE: Destroyed

CASUALTIES: Crew: 1 uninj; pass: 2 fatal, 1 uninj.

OCCURRENCE: The pilot reported encountering severe turbulence followed by a 3 inch decrease in manifold pressure. He assumed he had an engine failure and carried out a forced landing to a small lake directly below. After descending in a right turn through 240 degrees, the aircraft hit the water in a high rate of descent and immediately sank. The pilot and three passengers were able to evacuate the aircraft and started swimming to the shore, about 120 yards away; two of the passengers drowned in the attempt.

It was determined the aircraft was overweight by 464 pounds and the rearward centre of gravity limit was exceeded by 1.17 inches. An aircraft loaded this way would be unstable and it is likely this contributed to the partially out of control landing. The propeller blades showed evidence of some power on impact. An engine test run could not determine the cause of the reported rough running and power loss.

83-A30030

Aerospatiale AS350D

C-GSLG

DATE: 31 Oct 1983 1232 AST

OPERATION: Commercial non-revenue

PLACE: Goose Bay Arpt Lab Nfl 53/19N 60/26W

LOCALE: Flat tree-covered area 160' asl

WEATHER: Wind NW 13 kt vis 10 cloud 2000' broken temp 1°C

PILOT: Commercial Rotorcraft

TOTAL HOURS:	2800	ALL TYPES	150	ON TYPE
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LAST 90 DAYS:	70	ALL TYPES	20	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 3 uninj.

OCCURRENCE: The pilot was flight testing the helicopter after fluctuating engine parameters had been observed. On reaching about 1000 feet agl and establishing cruise flight, the problem was again noted. While returning to the airfield the low rotor warning light illuminated. Assessing the problem as a low side governor failure, the pilot reduced collective pitch in an attempt to stabilize the main rotor rpm. The rpm continued to decay and the pilot, realizing he could not make the airfield, made a full autorotation into a heavily forested area.

Investigation revealed that a crack in a "T" fitting between the power turbine governor and fuel control unit allowed metered air to escape. This would cause a false signal to be generated at the fuel control unit and result in decreased fuel flow and engine deceleration. The "T" fitting installed was not manufactured according to aircraft specifications.

84-A40002

Champion 7GCB

C-FNYY

DATE: 15 Feb 1984 1300 NST

OPERATION: Private recreation

PLACE: Springdale Nfl 49/25N 56/10W

LOCALE: Snow-covered farm field

WEATHER: Wind W 10 kt vis unlimited sky clear

PILOT: Private

TOTAL HOURS:	1400	ALL TYPES	20	ON TYPE
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LAST 90 DAYS:	40	ALL TYPES	15	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 1 uninj.

OCCURRENCE: After selecting an area on his property, the pilot landed his ski-equipped aircraft. After touching down, the right ski struck a rock covered by snow. The right gear collapsed and the aircraft came to rest on its right side and nose.

84-A40003

Cessna 421C

C-GWIL

DATE: 12 Apr 1984 2010 AST
OPERATION: Private business
PLACE: Bathurst Arpt NB 47/38N 65/44W
LOCALE: Snow-covered runway 4000' by 75' 194' asl
WEATHER: Wind E 5 kt vis 21/2 in snow and drizzle cloud 1000' overcast temp 0°C
PILOT: Airline Transport
TOTAL HOURS: 3000 ALL TYPES 30 ON TYPE
LAST 90 DAYS: 120 ALL TYPES 23 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 2 uninj; pass: 3 uninj.
OCCURRENCE: The crew was attempting take-off from the 4000 foot runway which was covered with 1/2 to 1 inch of slush. Feeling acceleration was inadequate, the captain rejected and braked heavily, but the aircraft slid off the end. The nose gear folded after striking a ridge about 250 feet into the overrun.

The crew had flown in an hour earlier to pick up 3 passengers. It was snowing, the temperature was near freezing and the wind was light. Before taxiing out they cleared snow from the aircraft. The captain did not do any take-off performance calculations, but resolved to reject if not airborne by the halfway point; this would be difficult to establish in the dark with snow falling. He rejected when, at the normal take-off speed of 95 KIAS, he raised the nose and it dropped back to the runway. Allowing for conditions, the accelerate-stop performance of this runway was marginal. The crew did not realize until after the accident the amount of slush on the runway - enough to reduce braking action to nil. The town gives snow clearing low priority, and there is no equipment at the field. Conditions were appropriate for sweeping, but the town is not equipped for such an operation. Also, the crew's limited experience on type may have been a factor.

84-A40008

Cessna 150J

C-FYFN

DATE: 19 May 1984 1930 ADT
OPERATION: Private recreation
PLACE: Bathurst NB 47/38N 65/44W
LOCALE: Flat grass-covered field
WEATHER: Wind variable cloud scattered above 1000 feet
PILOT: Private
TOTAL HOURS: 119 ALL TYPES 29 ON TYPE
LAST 90 DAYS: 10 ALL TYPES 10 ON TYPE
DAMAGE: Destroyed
CASUALTIES: Crew: 1 fatal
OCCURRENCE: The pilot was on a local VFR flight. On final approach the aircraft was seen to enter a right spiral dive and impact the ground in a 70 degree nose down attitude within 1/2 mile and adjacent to the runway threshold.

At impact the engine was not producing power and had stopped in flight because of fuel exhaustion. When the engine stopped, the aircraft was in a position from which a forced landing on the approach runway should have been possible.

**CESSNA 180G, C-GACT
DEADMAN'S POND, GANDER, NEWFOUNDLAND**

21 MAY 1984

REPORT

NUMBER: 84-A40009
LOCAL TIME: 1230 NDT
OPERATION: Private Recreational
DAMAGE: Substantial
PILOT LICENCE: Private

PILOT HOURS:	ALL TYPES	ON TYPE	
TOTAL	200	55	
LAST 90 DAYS	0	0	
INJURIES:	FATAL	SERIOUS	MINOR/NONE
CREW	—	—	1
PASSENGERS	—	—	1

SUMMARY

REPORT: The aircraft had completed one touch-and-go landing to the glassy water surface. During the second approach the aircraft was initially too high on final so the steepness of the descent path was increased. In the flare the aircraft touched down on the forward section of the left float, skipped onto the right float and then back onto the left float. Directional control was lost, the left wing struck the water and the aircraft came to rest inverted.

This was the pilot's first flight since the fall of the previous year. Standard techniques were not used for a glassy water approach and landing.

GOOSE BAY AIR SERVICES LTD.

CESSNA 185, C-GJQN

HEBRON FIORD, LAB. NFLD.

09 JULY 1984

REPORT

NUMBER: 84-A40017
LOCAL TIME: 1350 NDT
OPERATION: Charter
DAMAGE: Destroyed
PILOT LICENCE: Commercial

PILOT HOURS:	ALL TYPES	ON TYPE	
TOTAL	3000	1200	
LAST 90 DAYS	200	40	
INJURIES:	FATAL	SERIOUS	MINOR/NONE
CREW	—	—	1
PASSENGERS	—	—	—

SUMMARY

REPORT: The float-equipped aircraft encountered severe mechanical turbulence during descent for a water landing. One of nine non-approved 5-gallon plastic containers of outboard motor gasoline carried on board was knocked over causing a small amount of fuel to leak into the cargo area. The aircraft battery, located just behind the baggage compartment, was also upset at this time causing it to arc against the battery box. A normal landing was completed and upon investigation of the cargo area the pilot realized the severity of the situation. The gasoline ignited just as he was exiting the aircraft, forcing him to jump into the water without first being able to reach his life vest.

The aircraft was totally consumed by fire and sank within 10 minutes. The pilot, a non-swimmer, was unable to reach his life vest and hung onto a float until rescued by a boat.

Battery installation, in accordance with the aircraft manufacturer's instructions, would have precluded the possibility of it moving in air turbulence and arcing against its box. Had the gasoline been carried in approved containers that were secured, the fire would have been unlikely.

82-C20059

Aero Commander S2R

C-GYCW

DATE: 22 Jun 1982 1030 MST
OPERATION: Specialty application
PLACE: Herschel Sas 51/38N 108/21W
LOCALE: Dirt runway 2500' by 100' 2200' asl
WEATHER: Wind E 4 kt vis 15+ cloud scattered
PILOT: Commercial
TOTAL HOURS: 6000 ALL TYPES 600 ON TYPE
LAST 90 DAYS: 200 ALL TYPES 100 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj.
OCCURRENCE: The pilot reported that while on final approach to land, the engine appeared to break away and tilt downward. The aircraft touched down short and when he swerved right to avoid a ditch, the forward section of the engine fell to the ground. The aircraft came to rest a short distance away.

Examination showed that the engine section forward of the supercharger collector case had separated as a result of circumferential fracture around the flange attached to the rear of the main crankcase; the fracture face was consistent with an overload mode of failure.

No cause of an in-flight overload could be determined, however, the failure was consistent with damage resulting from a short landing.

82-C20069

de Havilland DHC-3

C-FDIV

DATE: 1 Jul 1982 1800 CDT
OPERATION: Charter
PLACE: Black Lake Sas 59/15N 105/50W
LOCALE: Tree-covered hills
WEATHER: Vis 4 cloud 8000' overcast with rain showers
PILOT: Commercial
TOTAL HOURS: 15000 ALL TYPES 2000 ON TYPE
LAST 90 DAYS: 100 ALL TYPES 35 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj; pass: 7 uninj.
OCCURRENCE: While on final approach to land on an isolated lake, the engine stopped. Attempts by the pilot to restart were unsuccessful and he landed the aircraft in dense bush near the shoreline. The engine was not recovered from the crash site, and as a result the reason for the failure could not be determined.

83-C30048

Cessna U206D

C-GGOF

DATE: 5 Jun 1983 1200 MDT
OPERATION: Commercial non-revenue
PLACE: Cree Lake Sas 57/21N 107/08W
LOCALE: Lake water area 1600' asl
WEATHER: Wind W 10G15 kt vis 15 sky clear temp 16°C
PILOT: Commercial
TOTAL HOURS: 1 060 ALL TYPES 30 ON TYPE
LAST 90 DAYS: 30 ALL TYPES 21 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj; pass: 2 minor, 2 uninj.
OCCURRENCE: The pilot initiated a normal climb after lift-off. As the heavily loaded aircraft proceeded over the lake, it stalled; the pilot tried to regain airspeed by lowering the nose, but the aircraft continued to mush until it struck the water.

The wind was light on the strip; however, the pilot reported a 90 degree crosswind at 10 to 15 knots over the water. The lake was still partially ice covered; the temperature difference would result in subsiding air over the water. It is likely turbulence and windshear encountered at tree top height, together with the subsiding air over the lake, contributed to the stall.

Had the pilot initiated a shallower climb with a reduced load, the accident would likely not have occurred.

83-C30055

DeHavilland DHC-2

C-GVHS

DATE: 21 Jun 1983 1515 CDT
OPERATION: Charter
PLACE: Bonnar Lake Ont 52/54N 90/30W
LOCALE: Lake water area 5280' by 2640'
WEATHER: Wind NNW 9 kt vis 15 sky clear temp 28' C
PILOT: Commercial
TOTAL HOURS: 2200 ALL TYPES 350 ON TYPE
LAST 90 DAYS: 150 ALL TYPES 100 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj; Pass: 2 minor
OCCURRENCE: The pilot was attempting a take-off from a confined lake. The aircraft was near maximum weight and the temperature was high. He had planned a "go, no go" position and reported that the aircraft was on the step by this point. He reassured himself the take-off would be successful.

The pilot initiated a climb before a safe speed was reached and the aircraft did not accelerate properly. In order to avoid high terrain, the pilot commenced a turn to the right. The aircraft began to mush and then stalled on the lake surface.

The passengers reported that there were no seats available on the aircraft so they sat on top of the load.

83-C30056

Beech 95B55

C-FSPM

DATE: 24 Jun 1983 2100 CDT
OPERATION: state
PLACE: Prince Albert Sas 53/13N 105/40W
LOCALE: Paved runway 5000' by 200' 1405' ASL
WEATHER: Wind ENE 12G20 kt vis 15+ sky clear temp 15°C
PILOT: Senior Commercial
TOTAL HOURS: 1300 ALL TYPES 150 ON TYPE
LAST 90 DAYS: 70 ALL TYPES 50 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj; Pass: 2 uninj.
OCCURRENCE: The approach and landing to Runway 07 was normal. On the roll-out, the pilot inadvertently selected the gear up instead of the flaps; the gear collapsed and the aircraft came to rest on the runway.

The pilot had recently been flying a different type aircraft with the flap lever in almost the same position as the gear handle in this aircraft.

83-C30060

Sikorsky S55-BT

C-FUNT

DATE: 3 Jul 1983 1700 MST
OPERATION: Specialty control
PLACE: Dreger River Sas 55/43N 106/50W
LOCALE: River water area 1282' ASL
WEATHER: Wind WNW 26 kt vis 15+ cloud 2000' SCT temp 15°C
PILOT: Commercial Rotorcraft licence
TOTAL HOURS: 11000 ALL TYPES 400 ON TYPE
LAST 90 DAYS: 65 ALL TYPES 65 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj.
OCCURRENCE: While the helicopter pilot was picking up water with a bucket the tail rotor failed; he managed to land the machine in shallow water and keep it upright.

Inspection of the machine revealed that the tail rotor gearbox and tail rotor assembly had been ripped from the tail rotor pylon. These parts were found resting on the bottom of the river below the tail boom of the helicopter. A large section of one of the tail rotor blades was recovered some distance from the main wreckage.

The tail rotor blade separated under normal operating loads due to fatigue cracking and ultimate overload rupture of the fatigue-weakened section. The fatigue initiated on the inside surface of the blade spar located at a corrosion pit within a localized region of corrosive attack. The corrosive attack and pitting were directly associated with a high local concentration of phosphorous.

The source of the phosphorous was a phosphoric acid metal prep solution used to bond a U-channel of the blade to the inside of the spar. (LP 286/83).

83-C30070

Piper PA32-300

CF-BBY

DATE: 16 Jul 1983 1115 CDT
OPERATION: Charter
PLACE: 27 nm N of Grand Rapids Man 53/36N 99/13W
LOCALE: Flat tree-covered swamp area
WEATHER: Sky overcast with thundershowers
PILOT: Commercial
TOTAL HOURS: 281 ALL TYPES 14 ON TYPE
LAST 90 DAYS: 26 ALL TYPES 14 ON TYPE
DAMAGE: Destroyed
CASUALTIES: Crew: 1 fatal; pass: 1 fatal
OCCURRENCE: The pilot departed on a VFR flight following a 24 hour delay because of extensive frontal thundershowers. The day of the accident, the weather had not changed significantly - low and middle cloud covered much of the area with embedded towering cumulus and thunderstorms at several locations.

The aircraft experienced a high G overload leading to an in-flight breakup. The overload probably resulted from a severe up-gust associated with thunderstorms.

83-C30072

Cessna A188B

C-GEHT

DATE: 18 Jul 1983 0845 CST
OPERATION: Private spray
PLACE: 1 mile NW of Gravelbourg Sas 49/55N 106/35W
LOCALE: Flat farm strip 2200' long 2290' ASL
WEATHER: Wind light vis 15+ sky clear temp 16°C
PILOT: Private licence
TOTAL HOURS: 1000 ALL TYPES 100 ON TYPE

LAST 90 DAYS:	45	ALL TYPES	45	ON TYPE
DAMAGE:	Substantial			
CASUALTIES:	Crew: 1 uninj.			
OCCURRENCE:	Shortly after getting airborne in light and variable winds, the agricultural spray aircraft developed a rate of sink. To avoid a pole, the pilot turned right and initiated a descent in an attempt to go under the power line. The left wing struck the power line causing loss of control.			

The aircraft touched down hard in a nearby field and was substantially damaged. As the aircraft had no mechanical or structural problems, the pilot surmised that the winds had contributed to the rate of sink.

83-C30080	Piper PA25-235	C-GVHY
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DATE:	27 Jul 1983 1130 CDT			
OPERATION:	Specialty application			
PLACE:	Sidney Man 49/54N 99/04W			
LOCALE:	Hard dirt road 2640' long			
WEATHER:	Wind NNE 1 kt vis 20+ sky clear temp 32°C			
PILOT:	Commercial			
TOTAL HOURS:	4500	ALL TYPES	2300	ON TYPE
LAST 90 DAYS:	250	ALL TYPES	200	ON TYPE
DAMAGE:	Substantial			
CASUALTIES:	Crew: 1 uninj.			
OCCURRENCE:	The pilot was flight checking the aircraft spray equipment. Shortly after take-off, at about 75 feet above ground, the engine failed. The pilot activated the load dump and landed straight ahead. There was substantial damage to the right main gear and right wing spar.			

The electric boost pump was not used during the take-off. This, combined with the high temperature may have caused a fuel system vapor lock.

83-C30095	Cessna 337A	C-GRHA
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DATE:	21 Aug 1983 1415 CDT			
OPERATION:	Commercial non-revenue			
PLACE:	Pikwitonei Man 55/35N 97/10W			
LOCALE:	Gravel runway 2100' by 100' 630' asl			
WEATHER:	Wind SW 7 kt vis 15 cloud 2500' broken temp 22°C			
PILOT:	Commercial			
TOTAL HOURS:	500	ALL TYPES	200	ON TYPE
LAST 90 DAYS:	200	ALL TYPES	200	ON TYPE
DAMAGE:	Substantial			
CASUALTIES:	Crew: 1 uninj.			
OCCURRENCE:	While crossing the airfield to join left downwind for a landing, the pilot noticed several motorcyclists on the runway. On short final, the cyclists cleared the runway and the pilot lowered full flap. The aircraft was moderately damaged as it slid to rest following a wheels-up landing.			

When the pilot first saw the motorcyclists on the runway he had partially completed his prelanding checklist and was about to lower the landing gear. Preoccupation with the cyclists until short final distracted the pilot and he did not recheck the gear prior to landing.

83-C30096

Cessna A185F

C-GYVZ

DATE: 19 Aug 1983 1320 CDT
OPERATION: Private business
PLACE: 8 mi S of Poplar River Man 52/52N 97/17W
LOCALE: Flat tree-covered area 745' ASL
WEATHER: Wind W 35 KT vis 15+ cloud SCT temp 18°C
PILOT: Private
TOTAL HOURS: 448 ALL TYPES 300 ON TYPE
LAST 90 DAYS: 39 ALL TYPES 39 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj; pass: 1 uninj
OCCURRENCE: While in cruise the engine failed due to fuel exhaustion. Due to strong winds the aircraft landed in the bush, well short of the selected forced landing point.

The pilot stated that he had been in the air 3.7 hours and estimated that he had fuel for 4 hours plus reserve. Only unusable fuel remained after the accident.

83-C30097

Cessna 206

CF-CIB

DATE: 25 Aug 1983 0900 CDT
OPERATION: Charter
PLACE: Pakwash Lake Ont 50/48N 93/28W
LOCALE: Lake water area 14 miles by 2000' 1132' asl
WEATHER: Wind S 8 kt vis 15+ sky clear temp 17°C
PILOT: Commercial
TOTAL HOURS: 5000 ALL TYPES 1000 ON TYPE
LAST 90 DAYS: 200 ALL TYPES 30 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 minor
OCCURRENCE: During take-off, just as the float plane was lifting off, it yawed left. The pilot was unable to overcome the yaw with either rudder or aileron, and the aircraft turned through 90 degrees, then collided with trees on the shoreline.

Examination of the wreckage did not reveal any pre-impact faults with the aircraft. All control systems were mechanically sound and functioned normally. However, the rudder trim was found in the one-half left position; the recommended take-off setting is one-half right.

The rudder trim system of this aircraft is such that when the trim selector is moved, the position of the rudder and pedals changes correspondingly. An override protection incorporates a bungee, so the pilot can override the trim setting if necessary.

Investigation determined that at the time of the accident, all seats, including the pilot's, had been removed from the aircraft to accommodate a load of particle board. During the take-off, the pilot was seated on the boards and secured by a lap belt. Testing determined that given this seating arrangement without a seat back, the pilot would not be able to counteract the effects of a one-half left rudder trim setting on take-off. The investigation concluded that the pilot had inadvertently attempted take-off with an incorrect rudder trim setting. The load the pilot was attempting to transport was not suitable for this aircraft.

83-C30098

Bell 206B

CF-OAQ

DATE: 9 Sep 1983 1545 CDT
OPERATION: Charter
PLACE: Weiser Lake Man 49/12N 93/45W
LOCALE: Tree-covered hills 1200' asl
WEATHER: Wind N 20 kt vis 5 cloud 3000' overcast with rain
PILOT: Commercial Rotorcraft and private
TOTAL HOURS: 1800 ALL TYPES 1200 ON TYPE
LAST 90 DAYS: 250 ALL TYPES 250 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj.
OCCURRENCE: The pilot was slinging a 1000 lb load in winds gusting from 20 to 25 kt. On final approach the visibility was reduced in a line squall. He couldn't maintain control in the gusty conditions and attempted to drop the load in a clearing. The hook would not release electrically and the pilot could not reach the manual release. The helicopter rotated 180 degrees, rolled left and landed, damaging the rotor drive system.

The hook release mechanism had not been properly maintained. Roller bearings were severely worn due to lack of lubrication and dust ingestion. Friction on the seized bearings prevented the release of heavier loads. (LP 396/83)

83-C30099

Piper PA 25-235

C-GWOO

DATE: 11 Sep 1983 1100 MST
OPERATION: Private spray
PLACE: 1 mile NW of White Fox Sas 53/29N 104/05W
LOCALE: Flat cultivated area
WEATHER: Wind NNE 5 kt vis 15 cloud 3200' scattered temp 12°C
PILOT: Commercial
TOTAL HOURS: 770 ALL TYPES 57 ON TYPE
LAST 90 DAYS: 85 ALL TYPES 52 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj.
OCCURRENCE: The pilot struck a power line at a road intersection after pulling up from a spray run. The aircraft stalled and crashed during the forced landing attempt.

The pilot stated he had checked out the power line from the air, but had not noticed how it angled in at the intersection. A more thorough check would have likely prevented the accident.

83-C30100

Cessna 180

C-FGYL

DATE: 17 Sep 1983 0700 MST
OPERATION: Private business
PLACE: 3 mi W of Debden Sas 53/31N 106/53W
LOCALE: Rolling cultivated area 1890' asl
WEATHER: Wind W 10 kt vis 1/2 cloud 200' obscured with fog and rain
PILOT: Private
TOTAL HOURS: 1000 ALL TYPES 200 ON TYPE
LAST 90 DAYS: 35 ALL TYPES 1 ON TYPE
DAMAGE: Destroyed
CASUALTIES: Crew: 1 serious
OCCURRENCE: The pilot took off from a farm strip on a short VFR flight to his home. He ran into rain, fog and low cloud shortly after take-off, and altered heading several times to remain VFR. The pilot flew into rising terrain without seeing the ground.

These weather conditions were forecast, but the pilot did not obtain a weather briefing through the Prince Albert FSS. He thought there was a 500 foot ceiling with no rain or fog in the immediate area. The pilot felt he knew the area well enough to skirt the precarious areas.

The pilot did not file a flight plan or notification and the ELT did not activate due to impact damage. He remained unconscious in the wreckage for an undetermined period.

83-C30101

Cessna TU-206G

C-GJJK

DATE: 18 Sep 1983 1300 MST
OPERATION: Charter
PLACE: Gunnar Bay Lake Athabaska Sas 59/23N 108/53W
LOCALE: Lake water area 5280' by 3280'
WEATHER: Wind NNW 26 G 44 kt vis 15 cloud 4000' broken temp 0°C
PILOT: Private
TOTAL HOURS: 5000 ALL TYPES 1500 ON TYPE
LAST 90 DAYS: 80 ALL TYPES 80 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj; pass: 2 uninj.
OCCURRENCE: The pilot reported that while taxiing for take-off from a sheltered bay, a gust of wind lifted a wing and the aircraft overturned. Although the waves were only a foot high, in the less sheltered area of the lake, the pilot reported swells of up to six feet. It is apparent that the take-off was not as sheltered as the pilot thought, and he encountered wind conditions unsuitable for water operations.

83-C30102

Enstrom F28C

C-GBOU

DATE: 22 Sep 1983 0950 EDT
OPERATION: Specialty training
PLACE: Thunder Bay Ont 48/23N 89/22W
LOCALE: Flat cultivated area 800' asl
WEATHER: Wind NNW 17 kt vis 15 cloud 3400' broken temp 7°C
PILOT: Commercial
TOTAL HOURS: 2830 ALL TYPES 228 ON TYPE
LAST 90 DAYS: 190 ALL TYPES 190 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 2 uninj.
OCCURRENCE: During a dual training flight, the student pilot simulated tail rotor failures while in hover. From an into-wind position, the helicopter was allowed to rotate to the right, simulating one type of failure. After turning through 270 degrees, the student was to roll the throttle off, arrest the turn and permit the aircraft to weathercock into wind. Ground contact could then be cushioned by applying collective.

The inexperienced student reacted prematurely and closed the throttle to idle after completing only one-quarter of the pedal turn; this placed the helicopter downwind when the rotation finally ceased. When he applied collective the hover was prolonged, seriously decaying rotor rpm. Control was lost when the low rotor speed prevented correction of a nose-down, right skid low attitude. The skid, then the main rotors hit the ground as the helicopter rolled onto its side.

Had the procedure been demonstrated in calm winds, the instructor may have had time to prevent the roll-over.

83-C30103

Champion 7KCAB

C-GZKV

DATE: 23 Sep 1983 1545 MST
 OPERATION: Private recreation
 PLACE: Lancer Sas 50/48N 108/53W
 LOCALE: Flat stubble field
 WEATHER: Wind calm vis 15 sky clear
 PILOT: Private

TOTAL HOURS:	268	ALL TYPES	33	ON TYPE
LAST 90 DAYS:	unknown	ALL TYPES	10	ON TYPE
DAMAGE:	Substantial			
CASUALTIES:	Crew: 1 uninj.			

OCCURRENCE: While on a local flight, the pilot decided to land at a friend's farm. After inspecting the stubble field from the air, he decided it was suitable for landing. After touchdown, he had begun braking lightly when the right wheel dug into soft ground and the machine nosed over. The pilot later stated that his aerial inspection was inadequate.

83-C30104

Cessna 177B

C-GWZK

DATE: 27 Sep 1983 1755 EDT
 OPERATION: Private recreation
 PLACE: 6 mi NNE of Thunder Bay Ont 48/25N 89/18W
 LOCALE: Tree-covered hills 800' asl
 WEATHER: Wind E 8 kt vis 3 cloud 300 broken temp 12°C
 PILOT: Private

TOTAL HOURS:	400	ALL TYPES	253	ON TYPE
LAST 90 DAYS:	40	ALL TYPES	40	ON TYPE
DAMAGE:	Substantial			
CASUALTIES:	Crew: 1 uninj; pass: 1 uninj.			

OCCURRENCE: The pilot departed on a VFR flight plan, having first checked that the weather was forecast to remain VFR.

Within 12 miles of destination, the weather deteriorated rapidly. Attempting to divert to an alternate airport, he was forced to fly at treetop level to remain clear of the low stratus. The pilot rejected the option to climb above the fog, based on his lack of instrument experience and the associated risk of losing control. Finally, he overflew a small field and carried out a precautionary landing, resulting in a loss of directional control on roll-out. The aircraft came to rest upright, after pivoting through 180 degrees when the left wing struck a tree.

An amended terminal forecast was made, (reflecting the rapidly changing weather) and issued at the time of the accident.

83-C30105

Pitts S1S (Homebuilt)

C-GRZF

DATE: 2 Oct 1983 1500 CST
 OPERATION: Private recreation
 PLACE: 3 mi SW of Kindersley Sas 51/27N 109/11W
 LOCALE: Grass-covered farm strip
 WEATHER: Wind NW 4 kt vis 15 cloud 9000' scattered temp 11°C
 PILOT: Private

TOTAL HOURS:	800	ALL TYPES	200	ON TYPE
LAST 90 DAYS:	10	ALL TYPES	0	ON TYPE
DAMAGE:	Substantial			
CASUALTIES:	Crew: 1 uninj.			

OCCURRENCE: The pilot stated that during flight, a wheel pant dislodged and obstructed the wheel. He attempted a landing on the other wheel, but at low speed the wheel pant dug in and the aircraft came to rest inverted. The mounting hole which had been drilled very close to the edge of the wheel pant material had worn through.

83-C30106

Piper PA34-200

C-GPFK

DATE: 4 Oct 1983 2000 CDT
OPERATION: Charter
PLACE: Swan River Man 52/07N 101/14W
LOCALE: Paved runway 2500' by 75' 1100 asl
WEATHER: Wind S 5 kt vis 15+ sky clear temp 5°C
PILOT: Airline Transport
TOTAL HOURS: 4000 ALL TYPES 750 ON TYPE
LAST 90 DAYS: 270 ALL TYPES 200 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj; pass: 2 uninj.
OCCURRENCE: After landing, the hydraulic jack mount assembly failed and the nose gear collapsed.

The mount had failed due to overload induced through wear. The aircraft had only accumulated 2600 hours. The mount was manufactured of too light a material. (LP 449/83)

83-C30107

Piper PA-12

CF-JQH

DATE: 4 Oct 1983 0815 CDT
OPERATION: Private recreation
PLACE: No Name Lake Man 50/50N 95/44W
LOCALE: Glassy lake water area
WEATHER: Wind S 4 kt vis 650' sky OBS with fog temp 8°C
PILOT: Private
TOTAL HOURS: 400 ALL TYPES 360 ON TYPE
LAST 90 DAYS: 30 ALL TYPES 30 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj; pass: 2 uninj.
OCCURRENCE: The pilot and two passengers planned to go duck hunting. About half way to destination, the pilot encountered lowering ceilings, drizzle and fog. He assumed this to be a local condition and carried on for a short period. The visibility then decreased to near zero, and the pilot landed on the first available lake to wait out the weather.

Due to reduced visibility and a higher than normal landing speed, the aircraft overran the lake surface and came to rest on top of a bog.

83-C30108

Piper PA-30

CF-RQS

DATE: 24 Oct 1983 0815 CDT
OPERATION: Private business
PLACE: Carlyle Sas 49/38N 102/17W
LOCALE: Oil-covered clay runway 3000' by 75' 2074' asl
WEATHER: Wind NNW 15 kt vis 20 sky clear temp 6°C
PILOT: Private
TOTAL HOURS: 263 ALL TYPES 141 ON TYPE
LAST 90 DAYS: 13 ALL TYPES 13 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj; pass: 4 uninj.
OCCURRENCE: The pilot was landing on Runway 29 with winds from 340/350 at 15 mph. The pilot reported that after he bounced on landing, the aircraft drifted left and on the second touchdown, the left main gear was on the soft rough side of the runway. The drag pulled the aircraft off to the left and it turned through about 140 degrees before coming to rest; the landing gear collapsed.

83-C30109

Piper PA22-135

C-GEFJ

DATE: 25 Oct 1983 1615 CDT
OPERATION: Private recreation
PLACE: Bowsman Man 52/14N 101/12W
LOCALE: Grass strip 2600' by 50' 1000' asl
WEATHER: Wind NW 20 kt vis 15+ sky clear temp 15°C
PILOT: Private
TOTAL HOURS: 773 ALL TYPES 42 ON TYPE
LAST 90 DAYS: 6 ALL TYPES 5 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj; Pass: 1 uninj.
OCCURRENCE: The pilot decided to try an approach at his farm even though he realized there was a strong cross-wind at 45 degrees gusting from 20 to 25 knots. The aircraft began to drift to the right, and as he started to go around, a gust caught the left wing. The pilot was unable to correct before the right wing hit the ground. The aircraft cartwheeled into the field beside the grass strip.

The maximum cross-wind for this aircraft at that angle is approximately 12 knots.

83-C30110

Cessna 180

CF-IRP

DATE: 3 Dec 1983 1300 CST
OPERATION: Commercial - non-revenue
PLACE: Wrong Lake Man 53/00N 96/20W
LOCALE: Slushy frozen lake strip 2000' by 50' 812' asl
WEATHER: Wind calm vis 15+ sky clear temp -7°C
PILOT: Commercial
TOTAL HOURS: 25000 ALL TYPES 15000 ON TYPE
LAST 90 DAYS: 150 ALL TYPES 110 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj.
OCCURRENCE: The wheel-equipped aircraft landed on a marked strip with slush under about 3 inches of snow. Near the end of the landing run, the wheels dug in and the aircraft came to rest inverted. The pilot did not have a runway condition report.

83-C30111

Champion 7GCB

CF-WYD

DATE: 29 Oct 1983 1720 CDT
OPERATION: Flying Club recreation
PLACE: Kenora Ont 49/45N 94/29W
LOCALE: Water area 9900' long 1060' asl
WEATHER: Wind S 15 G 20 kt vis 15+ sky clear temp 9°C
PILOT: Airline Transport
TOTAL HOURS: 11083 ALL TYPES 4 ON TYPE
LAST 90 DAYS: 152 ALL TYPES 4 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj.
OCCURRENCE: While manoeuvring towards the dock, a strong gust pushed the aircraft into a moored aircraft.

The pilot did not compensate sufficiently for the wind conditions.

83-C30112

Luscombe 8F

C-FYCG

DATE: 2 Nov 1983 1625 CST
OPERATION: Private - business
PLACE: Dryden Ont 49/50N 92/45W
LOCALE: Grass runway 2000' by 75' 1353' asl
WEATHER: Wind NE 10G15 kt vis 15 cloud 4000' overcast temp 2°C
PILOT: Private
TOTAL HOURS: 750 ALL TYPES 560 ON TYPE
LAST 90 DAYS: 30 ALL TYPES 20 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj; pass: 1 uninj.
OCCURRENCE: On landing, the pilot reported the aircraft brakes were completely locked. The aircraft pitched nose down and came to rest inverted.

This aircraft is equipped with a heel brake system rather than the more conventional toe type. The pilot was wearing heavy winter boots at the time and unknowingly had the brakes on during touchdown.

83-C30113

Mooney M20J

C-GYJW

DATE: 4 Nov 1983 2045 CST
OPERATION: Private business
PLACE: 7 nm N of Mather Man 49/10N 99/11W
LOCALE: Rolling tree-covered area 1678' asl
WEATHER: Wind S 23 kt vis 3/4 cloud 350' overcast temp 7°C
PILOT: Private
TOTAL HOURS: 1063 ALL TYPES 1030 ON TYPE
LAST 90 DAYS: 32 ALL TYPES 32 ON TYPE
DAMAGE: Destroyed
CASUALTIES: Crew: 1 fatal; pass: 1 fatal
OCCURRENCE: The pilot departed Winnipeg on a 1 hour, night, VFR flight to Killarney, Manitoba. Approximately 2 hours after departure the aircraft was reported missing. The following morning it was located 23 miles southeast of destination, where it had crashed into trees. It was found by the residents of a nearby farmhouse who had heard a loud crash about 1 hour after the aircraft departed Winnipeg. Fog and darkness that evening, prevented them from locating the aircraft.

The aircraft struck the trees in level cruise flight. There was no indication of pre-impact failure which would have prevented continuation of the flight. The heading at impact indicated the pilot had reversed course and was returning toward Winnipeg.

The weather at the time of the accident was influenced by a cold front tracking across southwestern Manitoba. Low ceilings and visibility reduced in drizzle and fog prevailed throughout the evening. A reporting station 15 miles from the accident site which issues synoptic reports only 4 times daily, reporting ceiling 400 feet and visibility 1 mile in light rain and fog 2 1/2 hours before the accident. When the pilot contacted the Winnipeg weather office prior to departure, the area forecast indicated ceilings 400 feet above the higher terrain in the vicinity of the accident site.

It was apparent that the pilot had been flying at tree top height for some time prior to the accident. A witness reported observing the aircraft fly 50 to 60 feet above the trees in fog and drizzle. A nose gear door located 1/2 mile from the accident site had a tree strike mark and damage to the hinge structure indicating that it had beat against the belly of the aircraft for some time before breaking free. From the location, it was apparent the pilot decided to reverse course after the gear door struck a tree.

It was evident that the pilot continued to attempt VFR flight after encountering weather conditions well below VMC. The pilot was familiar with the route so should have been aware of local terrain heights. He was not qualified for instrument flight.

The flight was attempted after a day of business meetings in Winnipeg. The pilot began the day by flying from Killarney to Winnipeg, so had effectively been on duty for 12 hours, and awake for 14 hours; therefore, it is likely his actions were influenced by a preoccupation with business matters and fatigue.

In addition, alcohol was a contributing factor. A witness statement, along with an analysis of blood and tissue samples indicated the pilot had consumed alcohol prior to departure.

Investigators concluded that the accident was a result of a combination of these "human factors".

83-C30114

Cessna 185F

C-GFVY

DATE: 6 Dec 1983 1425 EST
OPERATION: Charter
PLACE: Kasabonika Lake Ont 53/32N 88/37W
LOCALE: Tree-bordered ice strip
WEATHER: Wind S light vis 15+ cloud 6000 scattered temp -30°C
PILOT: Commercial
TOTAL HOURS: 235 ALL TYPES 18 ON TYPE
LAST 90 DAYS: 20 ALL TYPES 10 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj; pass: 4 uninj.
OCCURRENCE: After an approach and touchdown on the tree-lined ice strip, at too high an airspeed, the aircraft veered to the left. The pilot failed to correct the swing and overran the end collapsing the right gear.

83-C30115

Piper PA-12

C-FJWX

DATE: 23 Nov 1983 1730 MST
OPERATION: Private recreation
PLACE: 15 mi SE of Maple Creek Sask 49/45N 109/17W
LOCALE: Flat ice-covered farm road
WEATHER: Wind calm vis 15+ cloud 10,000 SCT temp -10°C
PILOT: Private
TOTAL HOURS: 900 ALL TYPES 265 ON TYPE
LAST 90 DAYS: 32 ALL TYPES 32 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj.
OCCURRENCE: The pilot reported that at the end of the landing run on a slippery ice-covered road, the aircraft slid into a cattle guard at low speed.

83-C30116

Bell 204B

C-FDZE

DATE: 23 Nov 1983 1505 CST
OPERATION: Charter
PLACE: Winnipeg Man 49/55N 97/14W
LOCALE: Flat paved area on airport 773' asl
WEATHER: Wind WSW 8 kt vis 3 cloud 3000' overcast temp -7°C
PILOT: Commercial Rotorcraft
TOTAL HOURS: 6000 ALL TYPES 1420 ON TYPE
LAST 90 DAYS: Unknown ALL TYPES Unknown ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj; pass: 1 uninj.
OCCURRENCE: A flight check had just been completed and the pilot was manoeuvring the helicopter for a landing. An initial landing was made on an icy patch of tarmac. As the helicopter

was lifted into the hover to reposition it onto a more suitable surface, the pilot turned the tail of the helicopter towards several parked helicopters. The tail rotor struck the main rotor blade of a parked helicopter. Debris from the tail rotor struck and damaged a parked aircraft.

83-C30117

Cessna A185F

C-GCJF

DATE: 8 Dec 1983 1200 CST
OPERATION: Charter
PLACE: Phoenix Lake Sask 59/26N 104/57W
LOCALE: Ice strip 1500' long 812' asl
WEATHER: Wind W 6 kt vis 15+ sky clear temp -25°C
PILOT: Commercial
TOTAL HOURS: 1300 ALL TYPES 350 ON TYPE
LAST 90 DAYS: 110 ALL TYPES 50 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj.
OCCURRENCE: The ski-equipped aircraft was being used to carry supplies to a temporary airstrip on a frozen lake. During the landing run, the aircraft did not slow down as quickly as the pilot expected. Aware it would overrun the airstrip and attempting to avoid a person on the shore, the pilot swerved the aircraft to the left causing a groundloop. The machine hit trees along the shore and was substantially damaged.

The pilot had never received a ski check-out and this was his first ski landing. The airstrip was relatively short with large sections of bare ice and packed snow. In addition, the pilot landed in a slight tailwind.

83-C30119

Cessna U206G

C-GBBZ

DATE: 12 Dec 1983 0930 CST
OPERATION: Charter
PLACE: Big Stone Lake Man 53/42N 95/44W
LOCALE: Snow-covered frozen lake 877' asl
WEATHER: Sky clear vis 15
PILOT: Commercial
TOTAL HOURS: 3000 ALL TYPES 800 ON TYPE
LAST 90 DAYS: 160 ALL TYPES 60 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj; pass: 3 uninj.
OCCURRENCE: Prior to take-off, the pilot visually checked the flap setting as the gauge was inoperative. He estimated he had selected 20 degrees, and after becoming airborne, selected 10 degrees for the climb out. The flaps however, fully retracted and the aircraft landed heavily on a lake surface. A retaining bolt on the nose gear sheared allowing the nose ski to move up and into the propeller arc.

In addition to the inoperative flap gauge, the flap selector was not working properly. It had to be jiggled in order to stop flap travel, otherwise the flaps would fully extend or retract. It is likely the pilot selected more than 20 degrees, took off at a slower speed than normal, and when the flaps retracted fully, the aircraft settled heavily. The operation of the aircraft did not meet airworthiness standards.

83-C30120

Cessna 180A

C-FCBT

DATE: 30 Dec 1983 1005 CST
OPERATION: Private business
PLACE: Olha Man 50/40N 100/34W
LOCALE: Snow-covered area 1400' by 50' 2145' asl
WEATHER: Wind calm vis 15 + sky clear temp -10°C
PILOT: Private
TOTAL HOURS: 450 ALL TYPES 150 ON TYPE
LAST 90 DAYS: 40 ALL TYPES 40 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj; pass: 1 uninj.
OCCURRENCE: While landing on a snow-covered farm strip, the aircraft overran the landing area and collided with trees beyond the upwind end.

The pilot stated that he misjudged his clearance and touched down long. Following touchdown, there was insufficient distance remaining to safely stop the aircraft.

83-C30121

Champion 7FC

C-FYQA

DATE: 31 Dec 1983 1300 CST
OPERATION: Private recreation
PLACE: Elkhorn Man 49/59N 110/14W
LOCALE: Rolling grass strip 1650' asl
WEATHER: Wind calm vis 15 sky clear temp -4°C
PILOT: Private
TOTAL HOURS: 86 ALL TYPES 86 ON TYPE
LAST 90 DAYS: 5 ALL TYPES 5 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj.
OCCURRENCE: The pilot stated that as the electrical starter did not work, he hand swung the propeller. No chocks were used and there wasn't any qualified person at the controls. When the engine started, the aircraft moved forward and struck some farm equipment and bushes.

83-C30122

Piper PA-12

C-FJYW

DATE: 27 Nov 1983 1430 CST
OPERATION: Private recreation
PLACE: Snow Lake Man 54/54N 100/01W
LOCALE: Snow-covered gravel runway 2100' by 50' 970' asl
WEATHER: Wind W 5 kt vis 10 sky clear temp -20°C
PILOT: Student
TOTAL HOURS: 45 ALL TYPES 30 ON TYPE
LAST 90 DAYS: 45 ALL TYPES 30 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj.
OCCURRENCE: The pilot stated that the right brake would not release and the aircraft nosed down at low speed, in a snow bank bordering the runway. The accident was not reported until 50 days after it happened.

83-C30901

Piper PA28-236

N8220J

DATE: 19 Jun 1983 1330 CDT**OPERATION:** Private recreation**PLACE:** Eagle River Ont 49/45N 93/08W**LOCALE:** Grass runway 2200' by 175' 1210' asl**WEATHER:** Wind SSE 13 kt vis 15 sky clear**PILOT:** Private**TOTAL HOURS:** 203 ALL TYPES 76 ON TYPE**LAST 90 DAYS:** 46 ALL TYPES 46 ON TYPE**DAMAGE:** Substantial**CASUALTIES:** Crew: 1 uninj; Pass: 3 uninj.

OCCURRENCE: The pilot elected to do a short field take-off from a strip that was adequate for a normal take-off. During the pre take-off check, he did not extend the flaps to the required position; the aircraft became airborne after a short run and staggered along in a nose-high attitude a few feet above the ground. It drifted to the left side of the strip and dragged the tail tie- down a short distance; it then continued through bushes along the left side before stopping in a nose-down attitude.

83-C35001

Lazair Ultralight

C-IAKW

DATE: 24 Apr 1983 1000 CST**OPERATION:** Private recreation**PLACE:** Ignace Ont 49/26N 91/43W**LOCALE:** Flat tree-covered area**WEATHER:** Wind calm vis 15 sky clear**PILOT:** Private**TOTAL HOURS:** 52 ALL TYPES 2 ON TYPE**LAST 90 DAYS:** 2 ALL TYPES 2 ON TYPE**DAMAGE:** Substantial**CASUALTIES:** Crew: 1 serious

OCCURRENCE: The pilot was practicing touch and go landings, and was starting his third or fourth approach when the right engine failed. He applied full power to the left engine and tried unsuccessfully to start the right. He was unable to maintain height or directional control and the aircraft descended into the trees in a vertical nose-down attitude while turning right.

Examination of the engine (LP 184/83) detected no problem - it started and ran satisfactorily. The pilot had been told that the aircraft would maintain flight on one engine, but had no appreciation of the problems associated with asymmetric flight. The Operating Manual indicates that asymmetric flight is possible but suggests turning toward the good engine and reducing power to assist with control. The investigators felt that pilots should be told to prepare for a forced landing if one engine fails, and to reduce power on the good engine to retain control in the glide to a suitable area.

This accident is quite similar to the one described in report C35004.

83-C35002

Mirage MK2 Ultralight

C-IAOK

DATE: 7 Jul 1983 CDT**OPERATION:** Private business**PLACE:** Neepawa Arpt Man 50/14N 99/31W**LOCALE:** Grassy infield on airport 1282' AS**WEATHER:** Wind light vis 15+ sky clear temp 30°C**PILOT:** Private ultra-light**TOTAL HOURS:** 100 ALL TYPES 60 ON TYPE**LAST 90 DAYS:** 25 ALL TYPES 20 ON TYPE**DAMAGE:** Substantial

CASUALTIES: Crew: 1 serious.

OCCURRENCE: The pilot was engaged in a low level demonstration flight which involved pulling up into a stall followed by a wing-over and recovery. During the third such manoeuvre, the control column became detached when back pressure was applied to recover from the dive. The aircraft continued in a nose low attitude until it impacted the ground.

The control column attachment point had failed in the area of a factory weld.

83-C35003

Skyseeker (Ultralight)

C-IALT

DATE: 25 Aug 1983 2050 CDT

OPERATION: Private recreation

PLACE: Winnipegosis Man 51/39N 99/55W

LOCALE: Flat grass-covered area

WEATHER: Wind W 4 kt vis 15+ sky clear temp 24°C

PILOT: Unlicensed

TOTAL HOURS: Unknown

ALL TYPES

Unknown

ON TYPE

LAST 90 DAYS: Unknown

ALL TYPES

Unknown

ON TYPE

DAMAGE: Destroyed

CASUALTIES: Crew: 1 fatal

OCCURRENCE: The pilot had flown two circuit patterns and was returning to land likely due to impending darkness. Witnesses saw the aircraft commencing a turn, then the nose pitched down and the machine dived steeply into the ground.

Witnesses indicated a stall precipitated the final dive, but there were conflicting statements about engine operation; this machine can be landed without engine power. The engine appeared serviceable after the accident and fuel samples were normal. The autopsy and toxicology tests did not reveal any possible impairment or incapacitation. Investigators were unable to determine the cause of the loss of control, but feel that once the extreme nose-down attitude was reached, recovery was impossible. This type of aircraft is controlled by the pilot shifting his weight.

83-C35004

Lazair II Ultralight

C-IAOW

DATE: 5 Sep 1983 0945 EDT

OPERATION: Private training

PLACE: Kakabeka Falls Ont 48/25N 89/36W

LOCALE: Flat grass-covered area 1000' ASL

WEATHER: Wind calm vis 15+ sky clear temp 21°C

PILOT: Student ultralight

TOTAL HOURS: 5

ALL TYPES

5

ON TYPE

LAST 90 DAYS: 5

ALL TYPES

5

ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj

OCCURRENCE: The pilot had recently soloed in the twin engine ultralight and was now practicing touch and go landings. When he was turning a right base leg the right engine gradually failed. He felt that he could make the runway, but the right turn developed into a spiral dive, and the aircraft crashed about 500 m short of the runway.

Investigators tested the engine and found that it ran normally; no cause could be found for the failure. The two-stroke engine is designed for industrial uses, the most common being a portable water pump.

The Operating Manual indicates that if an engine fails, one-half aileron application will maintain directional control at full power. The Manual recommends making all turns toward the good engine. Despite 24 hours of ground school, the pilot was either unaware of, or did not follow these procedures. The aircraft has only one seat, so dual instruction is impossible, and the subject of asymmetric flight cannot be adequately

covered. The investigators felt that pilots should be told to prepare for a forced landing if one engine fails, and to reduce power on the good engine to retain control during the glide to a suitable area.

This accident is quite similar to the one described in report C35001.

84-C40001

Piper PA-32-300

C-FZYM

DATE: 3 Jan 1984 Time unknown
OPERATION: Private business
PLACE: 12 mi SW Shoal Lake Man 49/23N 95/18W
LOCALE: Marshy tree-covered area
WEATHER: Wind NW 20 G 30 kt vis 15 in freezing rain cloud 2000' broken temp 0°C
PILOT: Commercial
TOTAL HOURS: 838 ALL TYPES 110 ON TYPE
LAST 90 DAYS: 6 ALL TYPES 6 ON TYPE
DAMAGE: Destroyed
CASUALTIES: Crew: 1 fatal
OCCURRENCE: Prior to departure for a night VFR flight from Fort Frances to Winnipeg the pilot received a weather briefing which contained warnings of light freezing rain in association with a cold front.

The pilot stated his intention to depart on the flight and turn back if freezing rain was encountered.

Thirty five minutes into the flight an updated weather report for his destination was passed, indicating the possibility of the passage of the cold front. This was acknowledged by the pilot. No further communications were received from the aircraft.

When the aircraft failed to arrive at destination, an extensive search was initiated but failed to locate the aircraft. Members of a local flying club continued to search and 111 days after the accident located the wreckage.

The aircraft struck the ground in a steep high speed descent on an easterly heading. It could not be determined if this heading resulted from an attempt to turn back or from loss of control. No evidence was found to indicate any pre-impact failure. Severe freezing rain conditions were reported by ground witnesses in the vicinity of the accident.

The aircraft was painted white and crashed on snow covered ground. It was not located until the snow melted. Although an ELT was installed no signals were heard. The ELT aerial was broken off at impact and the wreckage probably shielded the signal from search aircraft.

Fatigue could have contributed to the accident as the pilot had been on duty for 16 hours at the time.

84-C40003

Cessna 172M

C-GCZD

DATE: 8 Jan 1984 1630 MST
OPERATION: Specialty training
PLACE: Gravelbourg Sas 49/53N 106/33W
LOCALE: Paved runway 2500' by 75' 2296' asl
WEATHER: Wind calm vis 15+ sky clear
PILOT: Student
TOTAL HOURS: 14 ALL TYPES 14 ON TYPE
LAST 90 DAYS: 14 ALL TYPES 14 ON TYPE
DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj.

OCCURRENCE: The student pilot was flying supervised solo circuits. On touchdown the aircraft veered right, struck a snowbank and came to rest inverted. The reason for loss of directional control was not determined; however, the pilot did have a similar accident six weeks later when he applied the wrong rudder to stop a directional swing.

84-C40005

Aeronca 7AC

C-FTBB

DATE: 1 Feb 1984 1600 CST

OPERATION: Private recreation

PLACE: 10 mi NW of Plumas Man 50/23N 99/05W

LOCALE: Grass farm strip

WEATHER: Wind E 8 kt vis 2 cloud 2000 overcast temp -10°C

PILOT: Private

TOTAL HOURS:	113	ALL TYPES	78	ON TYPE
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LAST 90 DAYS:	9	ALL TYPES	9	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj.

OCCURRENCE: The pilot reported that during an overshoot, the engine lost power and airspeed was lost when he attempted to clear a power line. The aircraft impacted a driveway near the strip. Carburettor icing was considered a possible cause of the power loss.

84-C40006

Luscombe 8A

CF-LOI

DATE: 11 Feb 1984 1915 CST

OPERATION: Private recreation

PLACE: Dauphin Man 51/06N 100/03W

LOCALE: Paved runway 2750' by 100' 999' asl

WEATHER: Wind E 10 kt vis 20+ cloud 1500' overcast

PILOT: Private

TOTAL HOURS:	692	ALL TYPES	9	ON TYPE
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LAST 90 DAYS:	24	ALL TYPES	9	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 1 uninj.

OCCURRENCE: The pilot had completed the first leg of a cross-country, NORDO, night VFR flight terminating at a controlled airport. The aircraft landed with a 10 knot tailwind component, and touched down about halfway along a 2,750 foot runway. Even with maximum braking, the machine rapidly approached the end of the runway. While attempting to groundloop the aircraft to the left rather than overrun the runway, the left gear failed.

A choice of two runways was available to the pilot; one of 2,750 feet and the other 5,000 feet. The longer runway was equipped with lit wind socks at both ends which could have been used to confirm the wind direction. The runway selected was long enough, but the aircraft did not touch down until it had overflowed about half of the 2,750 feet available.

84-C40007

Cessna 172M

C-GCZD

DATE: 15 Feb 1984 1745 MST

OPERATION: Specialty training

PLACE: Gravelbourg Sas 49/53N 106/33W

LOCALE: Paved runway 2500' by 75' 2296' asl

WEATHER: Wind calm vis 15 sky clear

PILOT: Student

TOTAL HOURS:	15	ALL TYPES	15	ON TYPE
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LAST 90 DAYS:	15	ALL TYPES	15	ON TYPE
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DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj.
OCCURRENCE: The student pilot was flying supervised solo circuits. Shortly after touchdown the aircraft began to yaw to the right. Instead of using left rudder to correct the yaw, he applied right rudder, increasing the severity of the swerve. The propeller and right wing tip were damaged.

84-C40008

Beech A36

C-GPEA

DATE: 17 Feb 1984 0702 CST
OPERATION: Private business
PLACE: Russell Man 50/47N 101/17W
LOCALE: Rolling frozen farm field 1800' asl
WEATHER: Wind W 4 kt fog temp -1°C
PILOT: Private
TOTAL HOURS: 1500 ALL TYPES 200 ON TYPE
LAST 90 DAYS: 50 ALL TYPES 50 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 minor
OCCURRENCE: After flying VFR at night to his destination, circling at 500 feet and finding the field unlighted, the pilot set course to return to base. As he reached forward to set the heading "bug", his bulky parka inadvertently disengaged the autopilot. Although instrument rated, he soon found himself in a spiral dive and was unable to recover before the aircraft struck slightly right wing low.

Closer attention to his flight instruments and a higher circling altitude could have prevented this accident. If he had checked the weather forecast beforehand he would have found the flight was unadvisable because of fog.

84-C40009

de Havilland DHC-3

C-FLEA

DATE: 21 Feb 1984 1300 CST
OPERATION: Charter
PLACE: 1 mi E of Gullrock Lake Ont 50/59N 93/32W
LOCALE: Snow-covered lake 1157' asl
WEATHER: Wind light vis 15+ sky broken temp 0°C
PILOT: Commercial
TOTAL HOURS: 6000 ALL TYPES 2000 ON TYPE
LAST 90 DAYS: 120 ALL TYPES 100 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj.
OCCURRENCE: The pilot was on the return leg of a charter from Papoanga Lake to Red Lake Ontario when the aircraft experienced a partial power loss. During a forced landing on an ice covered lake the right main gear collapsed. The pilot reported that the power loss was due to a cylinder head failure. He stated the gear failed, when it struck a snow drift after touchdown.

84-C40010

Cessna 150M

C-GEZX

DATE: 26 Feb 1984 1100 CST
OPERATION: Private recreation
PLACE: Ninga Man 49/10N 99/50W
LOCALE: Flat tree-covered area 1630' ASL
WEATHER: Wind W 4 kt vis 15 cloud 10000' SCT temp -3°C
PILOT: Private
TOTAL HOURS: 550 ALL TYPES 400 ON TYPE

LAST 90 DAYS:	4	ALL TYPES	4	ON TYPE
DAMAGE:	Substantial			
CASUALTIES:	Crew: 1 serious.			
OCCURRENCE:	The pilot took off from a farm field and before returning to his home base did some local sightseeing. Since his track took him back over his departure point, he elected to fly low over his friend's home. During the low pass, the aircraft, in a steep left turn, descended into a stand of trees. The turn was initiated at low altitude and the aircraft descended. When the pilot reacted and pulled back hard on the control column, a tighter turn was induced from which he was unable to recover.			

84-C40011	Aeronco 11AC	CF-UUN
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DATE:	1 March 1984 1600 CST			
OPERATION:	Private Recreation			
PLACE:	South Knife Lake Man 58/10N 96/28W			
LOCALE:	Snow-covered lake			
WEATHER:	Clear			
PILOT:	Commercial			
TOTAL HOURS:	1404	ALL TYPES	10	ON TYPE
LAST 90 DAYS:	27.8	ALL TYPES	10	ON TYPE
DAMAGE:	Substantial			
CASUALTIES:	Crew: 1 fatal Pass: 1 fatal			
OCCURRENCE:	The aircraft was found by a search and rescue (SAR) crew responding to ELT detection by SARSAT satellite. The aircraft had struck a snow covered frozen lake in a left wing down attitude at a high sink rate. The passenger who was sitting in the left seat, was found unconscious, still clutching a rifle. The weapon was pointed out the left window and its sling was wrapped around his arm. It is probable that the pilot was flying at low altitude in a left turn, to facilitate hunting by the passenger, when the aircraft stalled.			

The wreckage was located approximately seven hours after initial ELT detection. The SAR crew reported that winds were too strong for para-rescue and used a helicopter charter to carry a rescue technician to the accident location early the next morning. The passenger died approximately 15 minutes after evacuation from the site.

84-C40012	Cessna 172	C-GEXP
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DATE:	3 Mar 1984 1430 CST			
OPERATION:	Specialty recreation			
PLACE:	St Andrews Man 50/03N 97/02W			
LOCALE:	Paved runway 3000' by 75' 758' asl			
WEATHER:	Wind calm sky overcast with light snow temp -5°C			
PILOT:	Private			
TOTAL HOURS:	85	ALL TYPES	3	ON TYPE
LAST 90 DAYS:	3	ALL TYPES	3	ON TYPE
DAMAGE:	Substantial			
CASUALTIES:	Crew: 1 uninj; pass: 1 minor, 1 uninj.			
OCCURRENCE:	As power was applied on a touch-and-go landing, the aircraft yawed left. After several swings to the left and right the aircraft left the runway. The nosewheel struck an obstacle, collapsed and the aircraft came to rest inverted.			

When power is applied, the aircraft tends to yaw to the left. The pilot may not have anticipated this and overcorrected causing the left yaw and loss of directional control.

84-C40014

Champion 7EC

C-FNDE

DATE: 8 Mar 1984 1415 MST
OPERATION: Private ferry
PLACE: Biggar Sas 52/03N 107/59W
LOCALE: Flat grass-covered area 2130' asl
WEATHER: Wind SSE 3 kt vis 15+ sky clear temp -15°C
PILOT: Commercial

TOTAL HOURS:	2500	ALL TYPES	300	ON TYPE
LAST 90 DAYS:	60	ALL TYPES	2	ON TYPE

DAMAGE: Minor**CASUALTIES:** Crew: 1 serious

OCCURRENCE: The pilot set the parking brake, chocked the wheels and swung the propeller by hand to start the engine. When the engine started, the aircraft jumped the chocks and started to move forward. Unable to get into the cockpit, the pilot grabbed the horizontal stabilizer and was scooped up onto the tail. The aircraft started to ground loop and the pilot jumped off. After three complete turns, the aircraft slowed down and started to move in a straight line. The pilot ran to the aircraft and turned off the magneto switches.

The aircraft wheels were blocked but proper chocks were not available. However, the most significant factor was that the cockpit was not occupied by a qualified person.

84-C40016

Piper J3C65

C-FMBQ

DATE: 17 Mar 1984 1230 CST
OPERATION: Private recreation
PLACE: Nora Lake Ont 49/13N 91/52W
LOCALE: Snow-covered frozen lake
WEATHER: Wind SSE 10 kt vis 6+ sky clear temp -10°C
PILOT: Private

TOTAL HOURS:	88	ALL TYPES	13	ON TYPE
LAST 90 DAYS:	7	ALL TYPES	7	ON TYPE

DAMAGE: Substantial**CASUALTIES:** Crew: 1 uninj.

OCCURRENCE: The inexperienced pilot landed the ski-equipped aircraft on a frozen lake in a 20 degree crosswind at less than 10 knots. He lost control moments after touchdown and the right landing gear collapsed during the ground loop. The pilot failed to compensate properly for the wind conditions.

84-C40017

Piper PA28-140

C-GJOO

DATE: 18 Mar 1984 1538 CST
OPERATION: Specialty - training
PLACE: Selkirk Man 50/10N 96/53W
LOCALE: Flat snow-covered field
WEATHER: Wind SE 10 kt vis 15+ cloud 8000' scattered temp -4°C
PILOT: Private

TOTAL HOURS:	170	ALL TYPES	155	ON TYPE
LAST 90 DAYS:	6	ALL TYPES	6	ON TYPE

DAMAGE: Substantial**CASUALTIES:** Crew: 1 uninj; pass: 1 uninj.

OCCURRENCE: About 40 minutes into an instrument training flight the pilot noticed that the fuel quantity was indicating low and he decided to return to the airport. Before reaching the airport the engine failed and the pilot selected the left tank. The engine failed again just short of the airport and a forced landing was made in a field just short of the runway. On touchdown the nosewheel dug into the ground and the aircraft came to rest inverted.

With a full fuel load the aircraft has a flight time of about 5.5 hours. Before the accident flight the aircraft had been flown for 3.4 hours since its last refuelling. A visual check of the fuel quantity was made by the pilot before the flight. An inspection of the aircraft did not reveal any leak source.

84-C40018

Aeronca 11BC

C-FHBK

DATE: 19 Mar 1984 1500 CST
OPERATION: Private recreation
PLACE: Rainy River Ont 48/45N 94/30W
LOCALE: Rough snow-packed farm field
WEATHER: Wind calm sky clear
PILOT: Private
TOTAL HOURS: 250 ALL TYPES 43 ON TYPE
LAST 90 DAYS: 13 ALL TYPES 13 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj; pass: 1 uninj.
OCCURRENCE: The pilot reported that the right shock strut to axle attachment bracket failed after landing. He attributed the failure to operation of the skiplane on rough snow surfaces.

84-C40020

Cessna 180H

C-FXCQ

DATE: 4 Apr 1984 0900 CST
OPERATION: Private business
PLACE: Pikangikum Ont 51/48N 93/59W
LOCALE: Frozen lake 1087' asl
WEATHER: Wind calm vis 15 sky clear temp 4°C
PILOT: Commercial
TOTAL HOURS: 550 ALL TYPES 95 ON TYPE
LAST 90 DAYS: 70 ALL TYPES 70 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj.
OCCURRENCE: After a normal landing, the right gear leg broke at the gear box fitting. The aircraft turned 180 degrees and came to rest on the right wing. The pilot reported the landing area to be rough. He had used the area all winter with no problems prior to the accident.

84-C40022

Cessna 150E

C-GKWR

DATE: 15 Apr 1984 1200 CST
OPERATION: Private recreation
PLACE: Lyncreast Man 49/51N 96/58W
LOCALE: Dirt strip 2800' by 100' 775' asl
WEATHER: Wind N 5 kt sky clear
PILOT: Private
TOTAL HOURS: 300 ALL TYPES Unknown ON TYPE
LAST 90 DAYS: 2 ALL TYPES Unknown ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj.
OCCURRENCE: The pilot entered the aircraft and prepared to start the engine when he realized he had forgotten to remove a nose gear tie-down. The pilot stated that after removing the tie-down, he reached up and "touched" the propeller; the engine started, the aircraft began to move, the pilot hung on to the right strut and the aircraft swung and struck his truck. It is likely the pilot had turned on the magnetos before removing the tie-down. The right door was locked, preventing him from stopping the aircraft.

KINGFISHER, C-GDEC
DRYDEN, ONTARIO
13 MAY 1984

REPORT

NUMBER: 84-C40024
LOCAL TIME: 1850 CDT
OPERATION: Ferry Flight
DAMAGE: Substantial
PILOT LICENCE: USA Commercial
PILOT HOURS: ALL TYPES ON TYPE
TOTAL 5256
LAST 90 DAYS 196
INJURIES: FATAL SERIOUS MINOR/NONE
CREW — 1
PASSENGERS — —

SUMMARY

REPORT: The recently purchased aircraft was being ferried to the USA. During the initial climb the engine began running rough and lost power. The pilot attempted to return to the departure airport but the aircraft was unable to reach the runway. A forced landing was made on a narrow gravel road 1/4 mile from the airport. When the left sponson contacted the ground the aircraft veered from the road and was damaged.

A spark plug was found to be loose. This allowed exhaust gas to blow by and damage the plug. The spark plug was shorting out against the cylinder head which, along with the loss of compression, resulted in a loss of engine power.

84-C40027

Cessna 172B

CF-NLO

DATE: 17 May 1984 0929 CST
OPERATION: Private business
PLACE: Regina Sas 50/26N 104/40W
LOCALE: Parking area on apron
WEATHER: Wind W 25 G 35 kt vis 15 cloud 30,000' broken temp 11°C
PILOT: Private
TOTAL HOURS: 2000 ALL TYPES 600 ON TYPE
LAST 90 DAYS: 50 ALL TYPES 30 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 minor; pass: 1 uninj.
OCCURRENCE: After landing and while taxiing towards the apron, the pilot had difficulty maintaining directional control of the aircraft due to the strong and gusty wind conditions. Once in the parking area he stopped the aircraft without turning it into the wind and had his passenger debark to hold the left wing down while he attempted to maneuver the craft into a parking space. As he retarded the throttle a strong gust lifted the left wing and flipped the aircraft inverted.

84-C40031

Grumman AA5A

C-GRCC

DATE: 11 Jun 1984 0739 CST
OPERATION: Private business
PLACE: Foam Lake SAS 51/47N 103/03W
LOCALE: Grass strip 2600' by 100' 1943' asw
WEATHER: Wind calm vis unlimited sky clear temp 18°C
PILOT: Private
TOTAL HOURS: 167 ALL TYPES 9 ON TYPE
LAST 90 DAYS: 19 ALL TYPES 9 ON TYPE
DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 1 uninj.

OCCURRENCE: The pilot, on a VFR flight to a work site, arrived over the farm strip and noted that an agricultural spray aircraft was parked at 90° to the runway and protruding onto the right side of the landing surface. He overflew the runway in an attempt to get the other pilot to move his aircraft but to no avail. Deciding to land on the left side of the strip he was on short final when the engine failed. He landed to the left of the centerline and had rolled only a short distance when the aircraft struck a rut or depression which caused a swing to the left. The aircraft struck a 4' runway marker which damaged the left wing.

Subsequent inspection of the carburator revealed a badly worn float needle valve that caused an over-rich mixture and failure of the engine.

84-C40035

Cessna 188

CF-UIN

DATE: 16 Jun 1984 1900 MDT

OPERATION: Private spray

PLACE: 3 mi N Loverna Sas 51/43N 109/58W

LOCALE: Built-up sparse area

WEATHER: Wind NNW 13 kt gusting cloud 5000' scattered temp 16°C

PILOT: Private

TOTAL HOURS: 800 ALL TYPES 200 ON TYPE

LAST 90 DAYS: 7 ALL TYPES 3 ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj.

OCCURRENCE: The pilot was taking off from a road to move the aircraft to an alternate site. He reported that he lost control after passing a grove of trees which were acting as a windbreak. He stated there were thundershowers in the area, resulting in gusty wind conditions.

84-C40037

Piper PA-25-235

C-GYHU

DATE: 17 June 1984 2120 CDT

OPERATION: Specialty application

PLACE: Elm Creek Man 49/42N 98/00W

LOCALE: Rolling grassstrip

WEATHER: Wind NW 5 KT VIS 15+ sky clear temp 20°C

PILOT: Commercial

TOTAL HOURS: 1020 ALL TYPES 140 ON TYPE

LAST 90 DAYS: 30 ALL TYPES 30 ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj.

OCCURRENCE: The pilot was carrying out crop spraying operations from a private grass airstrip. During the take-off roll the pilot aborted because of slow acceleration. With the tail down the pilot applied the brakes but was unable to stop the aircraft before it slid off the runway end and into a ditch.

Spraying operations had been stopped during the afternoon because of heavy rain storms in the area. The runway was soft and slippery when the accident occurred. This condition would adversely affect both take-off acceleration and braking performance.

83-30005

BAC 1-11

C-FQBO

DATE: 14 Feb 1983 0923 EST

OPERATION: Scheduled Domestic

PLACE: Toronto Int'l Arpt Ont 43/41N 79/38W

LOCALE: Concrete ramp area on airport

WEATHER: Wind S 7 kt vis 4 cloud 12000 broken temp -3°C

PILOT:	Airline Transport			
TOTAL HOURS:	12650	ALL TYPES	Unknown	ON TYPE
LAST 90 DAYS:	Unknown	ALL TYPES	unknown	ON TYPE
DAMAGE:	Substantial			
CASUALTIES:	Crew: 6 uninj; pass: 64 uninj.			
OCCURRENCE:	The aircraft had stopped at the loading bridge; the main front door was open, and passengers were preparing to disembark when the right wing tip was struck by a tractor.			

The tractor was manoeuvring from the rear in preparation for push-back. The operator sighted the wing tip moments before the accident and attempted to apply brake; his foot slipped from the brake pedal, the tractor continued moving, tore a gash into the trailing edge of the wing and nudged the aircraft forward.

83-30025	Cessna 310E	CF-VDP
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DATE:	23 Apr 1983 1314 EST			
OPERATION:	Private business			
PLACE:	Toronto Int'l Arpt Ont 43/41N 79/38W			
LOCALE:	Paved runway 10500' by 200' 569' asl			
WEATHER:	Wind SE 9 kt vis 20 cloud 4000' scattered temp 10°C			
PILOT:	Private			
TOTAL HOURS:	2500	ALL TYPES	500	ON TYPE
LAST 90 DAYS:	2	ALL TYPES	2	ON TYPE
DAMAGE:	Substantial			
CASUALTIES:	Crew: 1 uninj; pass: 3 uninj.			
OCCURRENCE:	When the pilot lowered the gear for landing he was unable to get a down and locked indication for the right main gear. The gear was recycled but the indication remained the same. After the tower advised that all gears appeared to be down, the pilot landed. During the landing roll, the right gear collapsed and the aircraft swung into the grass to the right of the runway.			

Examination determined the intermediate push-pull tube in the right gear failed in tension due to overload. As well, the right gear would not free-fall to the down and locked position because a bolt in the over centre lock had seized in its bushing probably due to lack of lubrication. Investigators concluded that the push-pull rod failed during the gear retraction cycle, on the previous take-off. Due to the bolt seizure, the gear would not free-fall back to the down and locked position.

83-30033	Piper PA24	CF-QVE
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DATE:	23 May 1983 1447 EDT			
OPERATION:	Private recreation			
PLACE:	1 mi SE of Windsor Arpt Ont 42/16N 82/58W			
LOCALE:	Flat cultivated area 622' asl			
WEATHER:	Wind W 19G30 kt vis 15+ cloud 4000' broken temp 20°C			
PILOT:	Private			
TOTAL HOURS:	unknown	ALL TYPES	unknown	ON TYPE
LAST 90 DAYS:	unknown	ALL TYPES	unknown	ON TYPE
DAMAGE:	Destroyed			
CASUALTIES:	Crew: 1 fatal; pass: 2 fatal			
OCCURRENCE:	The pilot was on a VFR flight from Buttonville to Windsor. First contact with Windsor tower was made while the aircraft was still 40 miles out. At this time, landing instructions were passed and acknowledged. As the aircraft neared the airport the pilot was instructed to carry out a right base approach to runway 30. Moments later the pilot reported that he had an unsafe gear down and locked indication and requested a low pass by the tower for a visual check. This request was acknowledged and granted. Following this communication, the radio transmissions from the aircraft, which had slowly deteriorated since initial contact, became totally inaudible. The pilot was			

apparently receiving tower transmissions for he continued to follow approach instructions.

The tower controller indicated that a 30 degree crosswind from the left at 20 knots prevailed. Shortly after, the aircraft passed abeam the tower at low altitude and the pilot was advised that his gear was only partially extended. The aircraft then made a left turn downwind at low altitude and low airspeed for an apparent left hand circuit to runway 30. It was then observed making a tight left base turn towards the runway threshold. The tower advised the pilot that extended landing gear was now visible. The aircraft rolled left, pitched nose-down and struck the ground in a near vertical attitude. It immediately burst into flame and the structure was almost totally consumed by the post-crash fire.

Examination of the wreckage revealed that partial flap was extended and all three gears were down and locked at impact. The landing gear had been extended by the emergency gear lowering system. The system deficiencies which necessitated the emergency gear extension or caused the communications difficulties could not be determined. The undamaged alternator was found to have been functional prior to impact and capable of outputting its rated current. The remainder of the electrical system was destroyed in the intense post-crash fire.

During the downwind and final turn, the pilot, in compliance with the owner's manual, likely reduced airspeed to manually extend the gear by the emergency system. Meanwhile the strong gusty crosswind probably drifted the aircraft in towards the runway, which in turn necessitated the tight final turn towards the runway threshold. The aircraft apparently stalled during the turn with insufficient altitude for recovery.

83-30037

Piper PA31-T2

C-GTVV

DATE: 8 Jun 1983 1300 EDT
OPERATION: Private business
PLACE: Harcourt Ont 45/08N 78/09W
LOCALE: Gravel runway 2750' by 60' 1200' asl
WEATHER: Wind NW 10 kt vis 15 cloud 4000' scattered temp 13°C
PILOT: Airline Transport licence
TOTAL HOURS: 6800 ALL TYPES 700 ON TYPE
LAST 90 DAYS: 50 ALL TYPES 45 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj; pass: 4 uninj.
OCCURRENCE: Following a demonstration flight, the pilot was on final when a high rate of sink developed. The left gear touched about 60 feet short of the runway followed by the right gear failing when it struck a small embankment just before the threshold. The aircraft rolled down the runway on the left main and nose gear for some 500 feet, then veered off to the right and struck rough ground, a ditch and some bush. The left main gear and nose gear failed and the aircraft came to rest on its belly about 1000 feet from the threshold.

83-30043

Piper PA28-181

C-GRQS

DATE: 23 Nov 1983 1612 EST
OPERATION: Specialty training
PLACE: 1 mi N of St Catharines Arpt Ont 43/12N 79/10W
LOCALE: Flat cultivated field
WEATHER: Wind E 14 kt vis 4 sky 2000' overcast with rain showers temp 8°C
PILOT: Commercial
TOTAL HOURS: 2310 ALL TYPES Unknown ON TYPE
LAST 90 DAYS: 160 ALL TYPES 100 ON TYPE
DAMAGE: Destroyed
CASUALTIES: Crew: 1 serious, 1 minor

OCCURRENCE: The student pilot, accompanied by an instructor, was practising circuits and landings. On climb-out, after about the sixth circuit, the engine lost power. The instructor lowered the nose and the engine regained power. As the aircraft was turned downwind the engine failed and a straight ahead forced landing was attempted. The aircraft struck a line of trees and the left wing was torn off. The aircraft rolled and came to rest inverted.

The instructor took the aircraft on a dual trip just before the mishap flight. Prior to the second flight, the preflight inspection was carried out, unsupervised, by the student. During examination of the wreckage, the drain valve on the fuel strainer bowl was found in the open position. There was green dye staining along the fuselage, left wing and a stabilizer, indicating an in-flight fuel leak.

An open fuel strainer drain valve would allow some fuel to drain overboard, but the engine would receive sufficient fuel for normal operation in level flight. While in a climb the fuel level in the tanks drops below the open valve level and air is drawn in through the valve causing engine failure from fuel starvation.

83-30050

Bede BD-4 (homebuilt)

CF-APL

DATE: 7 Jul 1983 2000 EDT
OPERATION: Private recreation
PLACE: Grimsby Air Park Ont 43/10N 79/36W
LOCALE: Paved runway 2800' by 75' 625' asl
WEATHER: Wind SW 6 kt vis 15 cloud 14000 scattered temp 20°C
PILOT: Private
TOTAL HOURS: 128 ALL TYPES 28 ON TYPE
LAST 90 DAYS: 28 ALL TYPES 28 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj.
OCCURRENCE: The pilot was conducting minimum distance take-offs and landings on a grass strip adjacent to a paved runway. At the approach end of the grass strip, a ditch had been excavated and three concrete pipes were lying on the surface.

During approach, the pilot maintained a lower than normal airspeed in an attempt to prevent excessive floating. At the flare, the left main wheel contacted the top of one of the 2 foot diameter pipes. The aircraft bounced and the main wheels struck the top of the ditch. The aircraft came to rest on its belly about 55 feet from the point of initial impact. The pilot stated he did not see the pipe or the ditch during the approach.

83-30052

Mooney M20J

C-GSDE

DATE: 10 Jul 1983 1703 EDT
OPERATION: Private recreation
PLACE: Hamilton Civic Arpt Ont 43/10N 79/56W
LOCALE: Rolling cultivated area 770' asl
WEATHER: Wind W 3 kt vis 15+ cloud 28000 broken temp 24°C
PILOT: Commercial
TOTAL HOURS: 1385 ALL TYPES 1100 ON TYPE
LAST 90 DAYS: 63 ALL TYPES 63 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj.
OCCURRENCE: While enroute at 2500 feet the pilot suddenly noticed oil on the windshield. He climbed to 4000 feet and requested vectors for a straight in approach to Hamilton. The volume of oil increased and completely covered the windshield cutting off all forward visibility. He shut down the engine when severe vibrations developed and low oil pressure was indicated. The pilot was unable to glide to the airport. The main gear collapsed when he made a forced landing in a field 3 miles short of the runway.

The oil leak originated at the pipe thread end of the 90 degree elbow in the propeller governor high pressure line. Two clamps that secure the governor line to the crankcase were not attached; this allowed the line to vibrate during engine operation until the elbow failed from fatigue. The engine had operated a total of 121.8 hours since the last major overhaul.

83-30053

Cessna 182F

C-GJSP

DATE: 9 Jul 1983 1542 EDT
OPERATION: Private recreation
PLACE: 5 mi NE of Cobden Ont 45/36N 76/47W
LOCALE: Grass strip 2200' long 500' asl
WEATHER: Wind NW 22 kt vis 20+ cloud 6000' scattered temp 23°C
PILOT: Private
TOTAL HOURS: 80 ALL TYPES 14 ON TYPE
LAST 90 DAYS: 18 ALL TYPES 14 ON TYPE
DAMAGE: Destroyed
CASUALTIES: Crew: 1 uninj; pass: 1 minor
OCCURRENCE: The pilot stated that during take-off in a strong crosswind the aircraft drifted left off the runway and through the infield. It cleared a fence and then ran into a windsock located about 200 feet from the side of the runway. The machine cartwheeled and was destroyed.

83-30054

Cessna A185E

CF-AXO

DATE: 9 Jul 1983 1210 EDT
OPERATION: Private recreation
PLACE: Port Colborne Ont 42/53N 79/21W
LOCALE: Grass runway 1900' by 75' 600' asl
WEATHER: Wind NW 5 kt vis 8 sky clear temp 26°C
PILOT: Senior Commercial
TOTAL HOURS: 2090 ALL TYPES 300 ON TYPE
LAST 90 DAYS: 9 ALL TYPES 9 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj.
OCCURRENCE: The pilot returned after dropping two parachutists. During the rollout, a parachutist walking down the side of the airstrip suddenly changed direction, putting himself in the path of the aircraft. When an attempt to steer around the jumper was unsuccessful, the pilot intentionally ground-looped to avoid a collision. The left wing and undercarriage fairing were damaged.

83-30055

Piper PA22-160

C-FKUR

DATE: 8 Jul 1983 1415 EDT
OPERATION: Private recreation
PLACE: Victoria Lake Ont 45/28N 77/38W
LOCALE: Lake water area 13200' by 1700'
WEATHER: Wind W 10 kt vis 15+ cloud scattered temp 21°C
PILOT: Private
TOTAL HOURS: 190 ALL TYPES 85 ON TYPE
LAST 90 DAYS: 6 ALL TYPES 6 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj; pass: 1 uninj.
OCCURRENCE: The aircraft veered right towards a wall of rock immediately after lifting off from a lake. Realizing he could not safely clear the obstruction, the pilot throttled back and stopped the engine. He also applied full left rudder and dropped the water rudders after settling

back on the lake. Before coming to a stop, the right float struck a submerged rock causing the aircraft to swerve right into the shoreline.

83-30056

Bellanca 7GCBC

C-GNHH

DATE: 12 Jul 1983 1830 EDT
OPERATION: Private business
PLACE: Eaglet Lake Ont 48/09N 85/19W
LOCALE: Lake water area 12000' by 1500' 1300' asl
WEATHER: Wind W 20 kt vis 20 sky clear temp 23°C
PILOT: Private
TOTAL HOURS: 200 ALL TYPES 100 ON TYPE
LAST 90 DAYS: 50 ALL TYPES 50 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj; pass: 1 uninj.
OCCURRENCE: The inexperienced pilot took off from Wawa for a flight to Eaglet Lake. During the landing at Eaglet Lake, the aircraft ran aground on the rocky tree-lined shore. The propeller, floats, struts and a wing were damaged.

In his report, the pilot considered the gusting winds caused the accident; however, the 1500 foot landing distance across the lake should have been adequate, especially with a 20 knot headwind.

83-30059

Cessna A185F

C-GGNT

DATE: 21 Jul 1983 1603 EDT
OPERATION: Private recreation
PLACE: 3 mi SSW of Timmins Arpt Ont 48/31N 81/25W
LOCALE: Hay field
WEATHER: Wind N 9 kt vis 15 cloud 6000' scattered temp 20°C
PILOT: Private
TOTAL HOURS: 670 ALL TYPES 118 ON TYPE
LAST 90 DAYS: 60 ALL TYPES 29 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 minor
OCCURRENCE: The amphibious aircraft was on a 25 mile VFR flight. At an altitude of 600 feet and three miles from destination, the engine failed and an attempt to restart it was unsuccessful. A forced landing was made into a rough field. When the engine failed, the float wheels were already extended. On touchdown, the float nose wheels broke off, causing the leading edges of the float bumpers to dig into the dirt. The aircraft cartwheeled and came to rest inverted.

When the engine failed the fuel gauges indicated about 1/4 full. The fuel system was examined and less than two gallons of fuel were recovered. For this model, 4 gallons of fuel is unuseable.

It could not be concluded whether the exhaustion of fuel was a result of usage or leakage, however, it is possible an undetected leak may have existed in one of the fuselage fuel system drain valves.

83-30062

Cessna 152

C-GQZR

DATE: 1 Aug 1983 1615 EDT

OPERATION: Specialty training

PLACE: Peterborough Arpt Ont 44/14N 78/22W

LOCALE: Paved runway 5000' by 100' 628' asl

WEATHER: Wind S 14 kt vis 15 sky BKN temp 26°C

PILOT: Commercial

TOTAL HOURS: 450 ALL TYPES 150 ON TYPE

LAST 90 DAYS: 100 ALL TYPES 100 ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 2 uninj.

OCCURRENCE: The pilot stated that an approaching thunderstorm forced the training flight back to the airport. While on approach, high winds, turbulence, and a sudden wind shift dictated an overshoot. During the attempt, heavy gusts caused it to strike the ground and roll into a drainage ditch off the end of the runway.

83-30063

Helio H391B

C-GOTP

DATE: 30 Jul 1983 2010 EDT

OPERATION: Private recreation

PLACE: Whitewater Lake Ont 46/32N 81/08W

LOCALE: Lake water area 1850' long

WEATHER: Wind NE 6 kt vis 25 cloud 30000 scattered temp 23°C

PILOT: Private

TOTAL HOURS: 1000 ALL TYPES 600 ON TYPE

LAST 90 DAYS: 30 ALL TYPES 30 ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 1 uninj.

OCCURRENCE: Just after lift-off, the aircraft was observed to climb steeply, turn to the right, then descend in a stalled condition. The aircraft struck the beach in a nose-up attitude under full power, bounced and came to rest in shallow water.

The investigation did not reveal any technical malfunction of the engine or other components. However, the pilot had consumed alcoholic beverages prior to take-off and it is suspected that he improperly operated the engine controls, which resulted in the power loss during take-off.

83-30066

Piper PA28-140

C-GQIR

DATE: 6 Aug 1983 1700 EDT

OPERATION: Flying Club recreation

PLACE: Brockville Ont 44/38N 75/45W

LOCALE: Paved runway 3516' by 90' 1136' asl

WEATHER: Wind WSW 8 kt vis 8 cloud 4000' SCT temp 25°C

PILOT: Senior Commercial

TOTAL HOURS: 23 000 ALL TYPES 80 ON TYPE

LAST 90 DAYS: 8 ALL TYPES 2 ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 1 uninj.

OCCURRENCE: During the landing, the pilot's daughter was "following through on the controls". After a normal touchdown and short roll, the aircraft veered left off the runway, struck a runway light and VASIS installation, then came to rest in a rough area about 100 feet from the runway edge. The daughter's left knee had apparently locked in the fully extended position while her foot was on the rudder pedal.

83-30069

Bellanca 7GCBC

C-GBDP

DATE: 7 Aug 1983 1830 EDT
OPERATION: Private towing
PLACE: 6 mi N of Guelph Ont 43/38N 80/18W
LOCALE: Flat cultivated field 1970' by 430' wide
WEATHER: Wind calm vis 15+ clear temp 27°C
PILOT: Commercial
TOTAL HOURS: 825 ALL TYPES 146 ON TYPE
LAST 90 DAYS: 50 ALL TYPES 14 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 minor.
OCCURRENCE: The tow aircraft was picking up a glider that had made an off- airport landing. The tow aircraft landed in a soft newly- harvested field with 9 inches of stubble. The pilot stated that he was advised that the field was .6 miles long when in fact it was .6 kilometres.

During take-off, the tow aircraft became airborne after passing the crest of a hill; it then settled back onto the surface and ran into stumps and trees.

The glider pilot jettisoned his end of the tow rope before the tow aircraft struck the trees. He kept flying for some distance before he too struck trees and came to rest about 1100 feet beyond the tow aircraft.

83-30070

Piper PA-23-250

CF-RXT

DATE: 29 Dec 1983 1515 EST
OPERATION: Commercial non-revenue
PLACE: Gore Bay Arpt Ont 45/53N 82/33W
LOCALE: Flat snow-covered cultivated field
WEATHER: Wind N 3 kt vis 15+ cloud 3200' scattered temp -16°C
PILOT: Airline Transport
TOTAL HOURS: 7500 ALL TYPES 800 ON TYPE
LAST 90 DAYS: 200 ALL TYPES 20 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj.
OCCURRENCE: The pilot took off from St Catharines on a VFR flight to Sault Ste Marie. About one hour later he was unable to move the fuel tank selectors when selecting from the outboard to inboard tanks. He then diverted to Gore Bay, the closest airport, but the engines failed due to fuel starvation on final approach and he carried out a forced landing 3/4 mile short of the runway.

It was determined both tanks selector valves had frozen internally preventing selection of fuel from the inboard tanks. A check of the fuel indicated it contained ice crystals in suspension. The aircraft had been fuelled from a fuel bowser at St Catharines which had been exposed to a gradual temperature drop over a number of days; the fuel was cooled further during the flight. The lowering of the fuel temperature allowed ice crystals to form and enough collected at the selector valve to prevent it from operating.

The use of an ice inhibitor would likely have prevented this accident. Although the engine manufacturer has approved the use of certain ice inhibitors, Piper Aircraft has not and, therefore, their use remains unapproved by Transport Canada.

83-30071

Fleet 80

C-FDYX

DATE: 16 Aug 1983 1555 EDT
OPERATION: Private recreation
PLACE: Cassidy Lake Ont 47/21N 79/42W
LOCALE: Lake water area 5280' by 1030' 1085' asl
WEATHER: Wind SW 15 kt vis 15 cloud 4000' scattered temp 27°C
PILOT: Private
TOTAL HOURS: 277 ALL TYPES 277 ON TYPE
LAST 90 DAYS: 1 ALL TYPES 1 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 minor.
OCCURRENCE: Even if its full length was used, the lake was considered marginal for float operations particularly because of hazardous rising ground and trees. Nevertheless, the pilot had been flying out of the lake for six years without any seeming difficulty.

On this occasion, although the take-off was made with a 15 knot wind, it appears he encountered a downdraft or shear shortly after lift-off - possibly due to flow down the rising terrain. When the pilot realized he could not clear the trees in his path, he turned off switches and braced himself. The aircraft was heavily damaged after striking trees, a cottage roof, and hydro lines.

3-30073

Piper PA28-140

C-GGJC

DATE: 21 Aug 1983 1500 EST
OPERATION: Flying Club recreation
PLACE: Newmarket Hare Field
LOCALE: Grass runway area 2000' by 90' 850' asl
WEATHER: Wind E 4 kt vis 15 + cloud 5000' BKN
PILOT: Private
TOTAL HOURS: 135 ALL TYPES 36 ON TYPE
LAST 90 DAYS: 27 ALL TYPES 4 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj; pass: 1 uninj.
OCCURRENCE: On his first approach for landing, the pilot realized he was too high. He overshot, and on the second approach, the aircraft touched down about 800 feet down the runway. The pilot retracted the flaps and applied full brakes. However, he was unable to prevent the aircraft from overrunning the runway.

A higher than normal speed and a long touchdown resulted in the pilot being unable to stop on the runway. It is possible that high trees on the final approach may have caused him to fly a high approach.

83-30074

Piper PA25-235

C-GESE

DATE: 21 Aug 1983 0920 EDT
OPERATION: Private spray
PLACE: 7 mi W of Hamilton Ont 43/15N 80/00W
LOCALE: Flat cultivated field 915' asl
WEATHER: Wind ENE 1 kt vis 15 sky clear
PILOT: Commercial
TOTAL HOURS: 2800 ALL TYPES 1200 ON TYPE
LAST 90 DAYS: 75 ALL TYPES 5 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj.
OCCURRENCE: The pilot had about three swaths left to spray. He had just completed a pass and pulled up when at about 150 feet, the engine lost power; he levelled the aircraft and touched down heavily in a freshly plowed field. The left wheel dug into the soft soil, collapsing the left main landing gear.

It was determined the engine failed from fuel exhaustion. Due to the constant attitude changes during spray operations, the pilot decided to ignore the fluctuating fuel quantity indications and the low fuel quantity warning light which he found to be distracting. He was relying solely on airtime; however, difficulty in identifying fields, while avoiding the sun and buildings, consumed more time than originally planned. The pilot (even with adequate warning of dangerously low fuel) still continued with his mission.

83-30076

Glasflugel Mosquito-B

C-GRKW

DATE: 21 Aug 1983 1650 EDT
OPERATION: Private recreation
PLACE: Guelph Ont 43/34N 80/12W
LOCALE: Flat grass-covered field 3200' by 300'
WEATHER: Wind W 8 kt vis 15 + cloud 6500' scattered temp 24°C
PILOT: Glider
TOTAL HOURS: 720 ALL TYPES 185 ON TYPE
LAST 90 DAYS: 47 ALL TYPES 43 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj.
OCCURRENCE: The pilot was conducting a cross country soaring flight with no planned intermediate landings. At one point in the flight, thermal activity was reduced to the extent the pilot decided to land in a field. During the landing roll, the glider crested a gentle upslope and weathercocked to the left. Full rudder and aileron could not correct the swing and the right wing struck a windmill.

The pilot stated he could have avoided the accident by conducting a more careful examination of the field from the air. Once he started the approach, he could not see the windmill until the glider crested the upslope. He also stated the landing roll could have been reduced through immediate use of wheel brakes after touchdown.

83-30079

Cessna A185F

C-GAKI

DATE: 27 Aug 1983 1505 EDT
OPERATION: Private recreation
PLACE: Lake Rosseau Ont 45/10N 79/37W
LOCALE: Lake water area 10000' by 5000' 742' ASL
WEATHER: Wind W 10G18 kt vis 15 cloud 2500' Bkn temp 25°C
PILOT: Private
TOTAL HOURS: 2462 ALL TYPES 1900 ON TYPE
LAST 90 DAYS: 25 ALL TYPES 25 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj.
OCCURRENCE: When the pilot took off in the float plane from the airport runway, he did not raise the landing gear. On touchdown, the aircraft flipped on its back as the wheels dug into the water. The pilot had forgotten to check the position of the gear prior to landing.

83-30081

Lyle Kadey MK1 (homebuilt)

C-GOET

DATE: 2 Sep 1983 1045 EDT
OPERATION: Private recreation
PLACE: St Thomas Ont 42/46N 81/06W
LOCALE: Paved taxiway 776' asl
WEATHER: Wind W 3 kt vis 15 + sky clear temp 23°C
PILOT: Private
TOTAL HOURS: 950 ALL TYPES 70 ON TYPE
LAST 90 DAYS: 50 ALL TYPES 20 ON TYPE

DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj.
OCCURRENCE: While taxiing, the pilot applied brakes, and the main landing gear collapsed. The aircraft settled onto the taxiway.

The landing gear collapsed when a high torsional load was applied to the glue joints. The loads resulted from a structural change made to the original designer's plans. In addition, the strength of the joints had deteriorated as engine oil seeped into them.

83-30084

Pitts S-1

C-GPUR

DATE: 3 Sep 1983 2000 EDT
OPERATION: Private recreation
PLACE: Walkerton Ont 44/07N 81/10W
LOCALE: Grass runway 2800' by 50' 1050' ASL
WEATHER: Wind S 4 kt vis 10 sky clear temp 21°C
PILOT: Private licence
TOTAL HOURS: 734 ALL TYPES 2 ON TYPE
LAST 90 DAYS: 27 ALL TYPES 2 ON TYPE

DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj.
OCCURRENCE: The pilot was practising take-off and landing manoeuvres. He flew a full circuit, and he reported that he flared high and before he could recover, the aircraft stalled and landed heavily on the runway. The main gear failed.

Examination revealed that the gear tension tubes had failed at the weld points due to overload. This damage is consistent with the reported heavy landing.

83-30089

Quickie

C-GQFE

DATE: 25 Sep 1983 1324 EDT
OPERATION: Private recreation
PLACE: Waterloo-Wellington Arpt Ont 43/28N 80/24W
LOCALE: Rolling grass-covered area 1020' asl
WEATHER: Wind SSW 12 kt cloud 3200' scattered temp 16°C
PILOT: Private
TOTAL HOURS: 221 ALL TYPES 0 ON TYPE
LAST 90 DAYS: 33 ALL TYPES 0 ON TYPE

DAMAGE: Destroyed
CASUALTIES: Crew: 1 minor
OCCURRENCE: During take-off, the engine was not developing sufficient rpm to obtain its marginal or 20 horsepower rating. The pilot made a forced landing in an unsuitable area and the aircraft was destroyed.

Reportedly, engine rpm decreased as the aircraft accelerated and became airborne. This is contrary to what should occur when the load on the propeller is lessened with airflow. A Safety Deficiency Notification was filed immediately to inform homebuilders of initial flight run-up indications to beware of. As a result of discussions with Transport and EAAC officials, both organizations issued cautionary advisories.

It is probable that the propeller pitch was too coarse for the engine to reach the rated rpm and horsepower. It is also quite possible that the pressure cowling on this particular aircraft interfered with the induction air supply following hook-up of the carburettor heat system. Another Quickie crashed on its fourth flight under similar circumstances.

83-30090

Pitts Special S-1

C-GQUU

DATE: 25 Sep 1983 1345 EDT
OPERATION: Private recreation
PLACE: 1 nm N of Baldwin Arpt Ont 44/16N 79/20W
LOCALE: Flat tree-covered area 750' asl
WEATHER: Wind SSE 11 kt vis 25 cloud 34000' broken temp 17°C
PILOT: Commercial
TOTAL HOURS: 1079 ALL TYPES 240 ON TYPE
LAST 90 DAYS: 32 ALL TYPES 0 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 fatal
OCCURRENCE: The experienced pilot was performing aerobatics while the aircraft owner was recording the flight on video tape. After about 15 minutes of sustained manoeuvres, the aircraft entered a spin from which the pilot did not recover. The aircraft struck the ground in a left spin and the pilot perished.

Examination of aircraft failed to reveal any mechanical failure that would have contributed to the accident. All damage was consistent with ground impact while in a spin.

There was no evidence of any physical incapacitation of the pilot.

The flight characteristics of this aircraft are such that rotation rate in a spin will increase if the pilot does not maintain back pressure on the control stick prior to stopping the rotation with rudder. Examination of the video tape showed that the spin rate increased, then decreased just prior to impact.

It is possible that while initiating a spin recovery, the pilot inadvertently moved the control stick forward and the aircraft rotated one more, unplanned turn, after which insufficient altitude was available for recovery. Distraction, or fatigue due prolonged aerobatics and the consequent "G" forces may have led to his inability to concentrate. (LP 393/83)

83-30092

Schweizer SGS-2-33

C-FDXP

DATE: 23 Oct 1983 1055 EDT
OPERATION: Private recreation
PLACE: Brockville Arpt Ont 44/38N 75/45W
LOCALE: Paved runway 3516' by 90' 396' asl
WEATHER: Wind ENE 10 kt vis 6 cloud 3800' OVC temp 3°C
PILOT: Glider
TOTAL HOURS: 68 ALL TYPES 22 ON TYPE
LAST 90 DAYS: 23 ALL TYPES 4 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj; pass: 1 uninj.
OCCURRENCE: During the down wind leg, the pilot realized he was too low for a safe approach and landing. He elected to land on the grass area of the airport's infield.

He stated that he began to side-slip and selected spoiler to increase his descent. He landed hard in a rough area of the infield and the glider ground looped.

83-30093

Robinson R-22

C-GSWR

DATE: 23 Oct 1983 1030 EDT
OPERATION: Charter
PLACE: 22 nm SW of Timmins Ont 48/13N 81/51W
LOCALE: Rolling paved area 800' by 100'
WEATHER: Wind calm vis 15 sky clear temp 5°C
PILOT: Commercial Rotorcraft
TOTAL HOURS: 480 ALL TYPES 110 ON TYPE
LAST 90 DAYS: 247 ALL TYPES 41 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 minor; pass: 1 minor
OCCURRENCE: After refuelling beside a road, the pilot attempted to take off using the road as a departure path. The helicopter struck utility wires strung across the road. The wires were not clearly visible because of tree-covered terrain rising in the background.

83-30094

Lake LA4-200

C-FCWE

DATE: 22 Oct 1983 1722 EDT
OPERATION: Private - business
PLACE: Pine Lake Ont 45/04N 79/04W
LOCALE: Tree-covered shoreline
WEATHER: Wind SE 14 G 21 kt vis 15 cloud 10000' scattered temp 9°C
PILOT: Private
TOTAL HOURS: 400 ALL TYPES 150 ON TYPE
LAST 90 DAYS: 18 ALL TYPES 18 ON TYPE
DAMAGE: Destroyed
CASUALTIES: Crew: 1 fatal; pass: 3 serious
OCCURRENCE: The pilot and three passengers were visiting a cottage on a lake. The pilot started a take-off run in an easterly direction, but aborted this attempt and made a high speed turn to try again heading southwest. This time the aircraft became airborne, but not until quite near the shoreline, and it did not clear trees on shore. Initial impact with the top of an evergreen severed 3 feet of the outer left wing, then the aircraft rolled and descended inverted through trees until it struck a large rock. The pilot sustained fatal head injuries on impact; there was no fire.

The triangular lake allowed for a run of 4100 feet in a southwesterly direction and the surrounding terrain included a rising shoreline and tall trees. Witnesses indicated the wind and water conditions varied, with a calm area in the sheltered bay where lift-off occurred.

Examination of the aircraft did not reveal any mechanical fault which could have contributed to the accident. It was determined that the aircraft was 136 lb below the maximum allowable take-off weight but the centre of gravity was 1.4 inches forward of the limit. This would increase the take-off run and probably degrade climb performance, but its contribution to the accident could not be determined. The aircraft had been modified in 1978 (heater removed to nose section), and the required weight and balance computations at that time were not properly performed. Calculations showed that with 4 passengers on board, the forward C of G limit was exceeded with full fuel, and fuel burning aggravated the situation.

The pilot's manual did not include any take-off or climb performance charts, and this was apparently the pilot's first water operation with three passengers on board. Apparently he realized the lake was marginal, as he discussed leaving one passenger behind. It is possible he encountered a decreasing headwind and downdrafts at the critical point on the take-off run; passengers stated the stall warning horn sounded throughout the short flight.

83-30095

Bell 206A

C-GAHV

DATE: 27 Oct 1983 1045 EDT
OPERATION: Specialty - training
PLACE: 2 mi S of Peterborough Arpt Ont 44/12N 78/22W
LOCALE: Level swamp area
WEATHER: Wind WNW 11 G 17 kt vis 15 cloud 14000 scattered temp 4°C
PILOT: Commercial Rotorcraft
TOTAL HOURS: 1980 ALL TYPES 750 ON TYPE
LAST 90 DAYS: 150 ALL TYPES 75 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 2 uninj; pass: 1 uninj.
OCCURRENCE: While lifting off from a confined area, the nose of the right skid caught under the roots of a dead tree. This caused the helicopter to roll to the right. A fire broke out in the engine compartment, but was extinguished by the crew using dry chemical extinguisher that was on board.

83-30096

Cessna 150D

CF-QVI

DATE: 30 Oct 1983 1750 EDT
OPERATION: Private - recreation
PLACE: 1 nm E of Sharbot Lake Ont 44/47N 75/35W
LOCALE: Side road in hilly area 720' asl
WEATHER: Wind SW 4 kt vis 15 cloud 2500' scattered temp 22°C
PILOT: Unlicensed
TOTAL HOURS: 280 ALL TYPES 280 ON TYPE
LAST 90 DAYS: 3 ALL TYPES 3 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj; pass: 1 uninj.
OCCURRENCE: While on a local flight, the pilot became lost. He located his position, some distance from his strip, as darkness was upon him. During the precautionary landing on a narrow road, one wing struck a pole and the aircraft came to rest against a fence.

83-30097

Cessna 150M

C-GPVV

DATE: 6 Nov 1983 1345 EST
OPERATION: Specialty - training
PLACE: Sarnia Arpt Ont 43/00N 82/19W
LOCALE: Flat cultivated field 594' asl
WEATHER: Wind SW 7 kt vis 12 cloud 14000 overcast temp 10°C
PILOT: Private
TOTAL HOURS: 101 ALL TYPES 11 ON TYPE
LAST 90 DAYS: 8 ALL TYPES 4 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj; pass: 1 uninj.
OCCURRENCE: The pilot indicated on the flight plan that he had enough fuel for 5 hours of flight. After about 3.8 hours and while on final approach to base, the engine failed due to fuel exhaustion. He carried out a forced landing short of the airport and the aircraft came to rest inverted. The aircraft flight manual specified 3.8 hours as maximum flight time available on a full tank.

83-35001

Lazair Ultralight

Not Req.

DATE: 29 Jan 1983 0945 EST
OPERATION: Private recreation
PLACE: Marten Lake Ont 46/43N 79/47W
LOCALE: Frozen lake surface
WEATHER: Not significant
PILOT: Unlicenced
TOTAL HOURS: unknown ALL TYPES unknown ON TYPE
LAST 90 DAYS: unknown ALL TYPES unknown ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 serious.
OCCURRENCE: This was the pilot's second flight on the ultralight aircraft. He reported that he performed some 8 to 10 practise runs before the flight. Shortly after becoming airborne, he had problems controlling the aircraft - witnesses saw the aircraft stall at about 60 feet agl, then dive into the ice surface at a steep angle.

83-35002

Skyseeker MK-1 Ultralight

None

DATE: 14 Mar 1983 1535 EST
OPERATION: Private training
PLACE: Lake Kashagowigamog Ont 44/40N 78/45W
LOCALE: Frozen lake surface
WEATHER: Wind calm vis 10 cloud 2500' overcast
PILOT: Unlicenced
TOTAL HOURS: 3 ALL TYPES 1 ON TYPE
LAST 90 DAYS: 3 ALL TYPES 1 ON TYPE
DAMAGE: Destroyed
CASUALTIES: Crew: 1 serious
OCCURRENCE: The pilot had planned a series of flight tests. During the second landing, the aircraft dipped sharply, damaging the gear. Following repair, the pilot took off again. As he circled the lake, the nose suddenly pitched up, then down, with a porpoising motion. Each oscillation increased in amplitude until control was lost completely. The ultralight then dove straight down onto the ice from a height of 30 feet.

The pilot's inexperience was compounded by improper flight rigging and an engine more powerful than he was used to. The inherent instability associated with weight-shift-controlled, powered hang gliders led to porpoising and loss of control.

Without a seat belt or substantial structure enclosing the pilot, no protection was afforded him on impact.

83-35003

Lazair Ultralight

C-IBDJ

DATE: 15 May 1983 1300 EDT
OPERATION: Private recreation
PLACE: Bowmanville Ont 43/54N 78/42W
LOCALE: Parking lot surface
WEATHER: Wind NNW 10 G 17 kt vis 12 cloud 1900' broken temp 11°C
PILOT: Unlicenced
TOTAL HOURS: 51 ALL TYPES 51 ON TYPE
LAST 90 DAYS: Unknown ALL TYPES Unknown ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj.
OCCURRENCE: On take-off into wind, the pilot realized too late he did not have sufficient climb rate to clear some hydro wires. He turned the aircraft sharply left to avoid striking the wires and the ultralight stalled and fell to the ground.

This aircraft has a very low stall speed. When turning downwind at low altitude, it will not tolerate a steep bank without loss of height or risk of stall.

83-35004

Lazair Ultralight

C-IAYV

DATE: 14 May 1983 0950 EDT
OPERATION: Private recreation
PLACE: 3 miles SW of Binbrook Ont 43/13N 79/55W
LOCALE: Grass runway 2130' by 175' 765' asl
WEATHER: Wind calm vis 6 cloud 25000' broken temp 15°C
PILOT: Unlicensed
TOTAL HOURS: 100 ALL TYPES 50 ON TYPE
LAST 90 DAYS: 3 ALL TYPES 3 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 serious
OCCURRENCE: The ultralight climbed very slowly, after a longer than normal take-off run. The pilot was concerned that he did not have safe clearance over the trees at the end of the runway, but chose not to turn, due to altitude loss when banked. At the end of the runway, and not yet above the trees, the right wing dropped; the aircraft nosed over into the ground from 100 feet, and cartwheeled to a stop.

With not enough airspeed to achieve suitable climb performance, the aircraft stalled with insufficient height for recovery.

Inadequate flying technique, coupled with a delay in the decision to reject the take-off, resulted in a stall. Serious injury was unavoidable given the structural integrity of the ultralight on impact.

83-35005

Le Pelican Ultralight

C-ICHM

DATE: 13 Jun 1983 1750 EDT
OPERATION: Private test
PLACE: Brantford Arpt Ont 43/08N 80/21W
LOCALE: Grass-covered area 815' asl
WEATHER: Wind SW 9 kt vis 5 cloud scattered temp 28°C
PILOT: Private
TOTAL HOURS: 659 ALL TYPES 0 ON TYPE
LAST 90 DAYS: 15 ALL TYPES 0 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 minor
OCCURRENCE: The pilot was conducting taxi tests into wind in his recently-constructed ultralight. He intended to see how the aircraft would perform under partial power, at various taxi speeds. During one test, he inadvertently became airborne. On take-off, the right wing immediately dropped, initiating a right turn. He applied left rudder but could not level out. An attempt to arrest the turn with aileron control, served only to tighten it. Downwind, now, and at low power, the wing stalled completely. The right landing gear separated on ground contact, damaging the nose section, right wing, and propeller. Following a nose over tendency, the aircraft came to rest in an upright position.

In conjunction with shoulder harness and helmet equipment, this ultralight, similar in design to a conventional aircraft, provided suitable protection for the pilot.

DATE: 22 Jun 1983 0730 EDT
OPERATION: Private training
PLACE: 3 miles S of Tillsonburg Ont 42/49N 80/42W
LOCALE: Grass runway 700' by 50' 820' asl
WEATHER: Wind light vis 10 cloud 30000 scattered temp 20°C
PILOT: Private

TOTAL HOURS:	80	ALL TYPES	1	ON TYPE
LAST 90 DAYS:	1	ALL TYPES	1	ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 serious

OCCURRENCE: The ultralight performed normally until, at 50 feet agl, the engine failed. To avoid some trees, the pilot made a left turn, with the intention of gliding to a grain field. During the turn, the aircraft stalled, pitched nose down and struck the ground.

Investigation determined that engine failure resulted from severe oil fouling of both spark plugs.

Prior to the accident, the pilot attempted to follow the recommended engine break-in procedure, by initially ground running the engine for 3 hours, using an oil rich fuel mixture. During this ground run, the engine stopped due to spark plug oil fouling. The pilot felt he had corrected the problem by washing and reinstalling the plugs. Details of the recommended break-in practice were not readily available. It's possible the supply of oil rich fuel was exhausted prior to take-off. The risk of plug fouling could have been reduced had he used the normal oil/fuel mix.

The inverted installation of the two cycle engine (using oil/fuel mixture) may well be more prone to spark plug oil fouling, than one not inverted.

The aircraft lacked the structural integrity necessary to protect the pilot, but a helmet did prevent serious head injury.

DATE: 10 July 1983 1545 EDT
OPERATION: Private recreation
PLACE: Guelph Ont 43/33N 80/15W
LOCALE: Land fill site
WEATHER: Wind N 8kt vis 15 cloud 3400' bkn temp 25°C
PILOT: Private Ultra-Light

TOTAL HOURS:	18	ALL TYPES	18	ON TYPE
LAST 90 DAYS:	12	ALL TYPES	12	ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj

OCCURRENCE: The pilot was on a cross-country flight from his home base when the engine lost all power. This necessitated a forced landing into a land fill site. The heavy touchdown caused the king post to bend and the wings to droop.

The power loss was attributed to air being ingested into the fuel system due to a plastic line deteriorating at the engine inlet.

83-35010

Quicksilver MX (Ultralight)

C-IBVO

DATE: 18 Aug 1983 2008 EDT
OPERATION: Private training
PLACE: Newmarket Hare Ont 44/05N 79/30W
LOCALE: Grass runway 1975' by 90' 850' asl
WEATHER: Wind N 6 kt vis 8 cloud 3500' scattered temp 24°C
PILOT: Student (ultralight)
TOTAL HOURS: 8 ALL TYPES 8 ON TYPE
LAST 90 DAYS: 8 ALL TYPES 8 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 serious
OCCURRENCE: After take-off the pilot climbed to about 250 feet. While turning right she felt no response from the rudder so she then turned left. Everything appeared normal but when she attempted to roll out of the turn the aircraft would not respond. The aircraft entered a left spiral and after completing 2 to 3 full turns, stalled and impacted the ground in a near vertical attitude from a height of about 75 feet.

Just prior to the accident flight, the aircraft had been flown for 10 minutes without any reported problems. A post-accident check did not reveal any flight control system defects.

83-35011

Rally 3 (Ultralight)

C-IATQ

DATE: 23 Aug 1983 1928 EDT
OPERATION: Private test
PLACE: 4 mi S of Chippawa Ont 43/01N 79/03W
LOCALE: Flat ploughed field 580' asl
WEATHER: Wind calm vis 15 cloud 2000' scattered temp 20°C
PILOT: Unlicensed
TOTAL HOURS: 150 ALL TYPES 8 ON TYPE
LAST 90 DAYS: 5 ALL TYPES 5 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 serious
OCCURRENCE: While testing a new propeller and while in cruise flight, the engine stopped. A forced landing was carried out into an open field and on touchdown, the ultralight flipped inverted. The engine appeared to have seized, but as the heads were removed from the cylinders, the engine became free. No evidence was found to indicate why the engine failed. The field selected for landing had been ploughed and the touchdown was made across furrows obscured by vegetation.

83-35012

Skyseeker MKIII

C-IBMM

DATE: 25 Aug 1983 0930 EDT
OPERATION: Private training
PLACE: Volkes Arpt Ont 44/08N 79/46W
LOCALE: Rolling tree-covered area on aerodrome 760' asl
WEATHER: Wind light and variable vis 15 sky clear
PILOT: Student (ultralight)
TOTAL HOURS: 7 ALL TYPES 7 ON TYPE
LAST 90 DAYS: 7 ALL TYPES 7 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 serious
OCCURRENCE: The student pilot was practicing solo circuits. On turning cross wind the left wing dropped, the aircraft entered a descending turn and struck the ground.

Just before the left wing dropped, the pilot experienced mild buffeting similar to that of a pre-stall. When the left wing dropped the pilot tried unsuccessfully to pick up the wing with aileron. The buffeting continued until the aircraft struck the ground.

83-35013

Chinook MT11 (Ultralight)

C-IBRJ

DATE: 28 Aug 1983 1815 EDT
 OPERATION: Private recreation
 PLACE: Newmarket Ont 44/05N 79/30W
 LOCALE: Grass runway 1900' by 100' 850' asl
 WEATHER: Wind calm vis 15 cloud 1500' broken
 PILOT: Private

TOTAL HOURS:	260	ALL TYPES	10	ON TYPE
LAST 90 DAYS:	10	ALL TYPES	10	ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj.

OCCURRENCE: While taking off on a grass strip, the pilot had difficulty controlling his ultralight and collided with an ultralight parked on the runway. At the start of the take-off run, the ultralight swerved to the right and ran off the runway. After being brought back onto the runway, the ultralight became airborne but would not climb. The collision occurred about 700 feet from the threshold.

Shortly before the flight a thunderstorm had passed through the area. The ultralight wings were covered in water droplets which disturbed the airflow over the wings in the same way frost can disturb airflow on wing surfaces.

83-35015

Skyseeker MK1 (ultralight)

C-IBOY

DATE: 1 Oct 1983 1215 EDT
 OPERATION: Private training
 PLACE: 2 nm NW of Nottawa Ont 44/27N 80/13W
 LOCALE: Rock and grass-covered field 725' asl
 WEATHER: Wind calm vis 15 cloud 25000' scattered temp 19°C
 PILOT: Unlicensed

TOTAL HOURS:	1	ALL TYPES	1	ON TYPE
LAST 90 DAYS:	1	ALL TYPES	1	ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 serious

OCCURRENCE: The student ultralight pilot was instructed to practise high speed taxiing as part of his pre-solo training. During one of the high speed runs, the student decided to become airborne. The aircraft climbed to an altitude of about 80 feet, circled several times and made an approach to land in the same field used for the take-off. During the approach, the pilot applied power and the aircraft began to climb at a steep angle and then stalled. The nose fell and the aircraft dove towards the ground recovering at a low altitude, and began to climb again at a steep angle with full power applied. The aircraft stalled again followed by a steep dive to the ground.

The pilot's application of full throttle caused the nose to rise rapidly. He did not have the training or experience to respond correctly to this condition.

83-35016

Lone Ranger (ultralight)

Not reg'd

DATE: 9 Oct 1983 1600 EDT
 OPERATION: Private recreation
 PLACE: Kennisis Lake Ont 45/13N 78/38W
 LOCALE: Lake water area
 WEATHER: Wind SE 5 kt vis 15+ sky clear temp 16°C
 PILOT: Private

TOTAL HOURS:	750	ALL TYPES	5	ON TYPE
LAST 90 DAYS:	5	ALL TYPES	5	ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj.

OCCURRENCE: After descending about 150 feet from a height of 300 ft, the aircraft yawed to the right violently and entered a spin. The pilot arrested the spin but was not able to recover from the ensuing dive before striking the lake surface.

Examination of the wreckage revealed a section of nylon fabric had detached from the lower right wing near its centre span. This resulted in a loss of lift and caused the aircraft to enter a spin to the right. Fragments of mylar fabric had been stitched together to form a patch and had been improperly attached to the lower surface of the wing.

83-30801

Schweizer SGS 1-26C

C-FSEI

DATE: 17 Jul 1983 1155 EDT

OPERATION: Private training

PLACE: 1 mi E of Hawkesbury Arpt Ont 45/37N 74/40W

LOCALE: Mid-air - crashed in lagoon

WEATHER: Wind W 4 kt vis 45 cloud 4500' Sct temp 23°C

PILOT: Student

TOTAL HOURS: 44 ALL TYPES 23 ON TYPE

LAST 90 DAYS: 11 ALL TYPES 10 ON TYPE

DAMAGE: Destroyed

CASUALTIES: Crew: 1 fatal; other aircraft crew: 1 fatal

OCCURRENCE: Two glider pilots were soaring in the same thermal. As they were turning in a tight spiral, one above the other, they collided. Both aircraft lost left wing sections; C-FZCR crashed in the Ottawa River and C-FSEI in a nearby lagoon.

It is not known if the glider pilots were aware of each other's presence. According to the aircraft Flight Manual, the best rate of climb in a thermal is about 6 mph above the stall speed, and the aircraft always falls in the direction of the turn in a stall. It is possible the higher glider stalled, fell inward and met the lower one head-on.

83-30802

Schweizer SGS 1-26A

C-FZCR

DATE: 17 Jul 1983 1155 EDT

OPERATION: Private training

PLACE: 1 mi E of Hawkesbury Arpt Ont 45/37N 74/40W

LOCALE: Mid-air - crashed in river

WEATHER: Wind W 4 kt vis 45 cloud 4500' Sct temp 23°C

PILOT: Student

TOTAL HOURS: 26 ALL TYPES 6 ON TYPE

LAST 90 DAYS: 3 ALL TYPES 3 ON TYPE

DAMAGE: Destroyed

CASUALTIES: Crew: 1 fatal; other aircraft crew: 1 fatal

OCCURRENCE: Two glider pilots were soaring in the same thermal. As they were turning in a tight spiral, one above the other, they collided. Both aircraft lost left wing sections; C-FZCR crashed in the Ottawa River and C-FSEI in a nearby lagoon.

It is not known if the glider pilots were aware of each other's presence. According to the aircraft Flight Manual, the best rate of climb in a thermal is about 6 mph above the stall speed, and the aircraft always falls in the direction of the turn in a stall. It is possible the higher glider stalled, fell inward and met the lower one head-on.

83-30902

Cessna 210M

N732VU

DATE: 21 Aug 1983 1456 EDT
OPERATION: Private business
PLACE: Windsor Arpt Ont 42/16N 82/58W
LOCALE: Paved runway 7900' by 200' 622' ASL
WEATHER: Wind SSE 4 kt vis 15 + cloud 4000' Sct temp 28°C
PILOT: Commercial

TOTAL HOURS:	787	ALL TYPES	787	ON TYPE
LAST 90 DAYS:	66	ALL TYPES	66	ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 4 uninj.

OCCURRENCE: The pilot took off for a short flight to a nearby airport. Prior to departure, he added fuel to the right tank and left about one inch in the left. During the climb-out, the engine ran rough and finally stopped. The pilot carried out a forced landing at an adjacent airport, but in the excitement, he forgot to extend the landing gear.

The pilot thought he put the selector on the right tank, but had inadvertently selected the left; fuel starvation resulted. He also appeared uncertain as to the appropriate emergency procedure to use for engine failure.

Post-accident power checks showed the engine was completely servicable. Although there was the possibility of a vapour lock, it could not be duplicated. In any case, when tested, the engine started without difficulty. Both the special procedure card on the instrument panel for vapor blockage and the emergency check list for engine failure apparently had been ignored.

83-34046

Cessna 177A

C-FXQK

DATE: 5 Sep 1983 1940 EDT
OPERATION: Private recreation
PLACE: Timmins Ont 48/34N 81/23W
LOCALE: Paved runway 6000' by 200' 967' asl
WEATHER: Wind ENE 5 kt vis 1 cloud 1200 overcast temp 7°C
PILOT: Private

TOTAL HOURS:	230	ALL TYPES	150	ON TYPE
LAST 90 DAYS:	36	ALL TYPES	36	ON TYPE

DAMAGE: None

CASUALTIES: Crew: 1 uninj; pass: 3 uninj.

OCCURRENCE: On arrival at the destination airport, the pilot found the weather had suddenly deteriorated below VFR. He was required to hold clear of the control zone until IFR traffic landed. During this time, the weather deteriorated to below SVFR. The pilot continued to remain clear of the zone until he declared an emergency and was cleared to land.

The engine stopped on approach, as a result of fuel exhaustion. A successful forced landing was made on the runway.

83-34038

Lake LA4-200

C-GNWE

DATE: 3 Apr 1983 1400 EST
OPERATION: Private recreation
PLACE: Lake Muskoka Ont 45/02N 79/27W
LOCALE: Ice-covered lake
WEATHER: Wind E 20 kt vis 15 + sky clear temp 10°C
PILOT: Private

TOTAL HOURS:	300	ALL TYPES	290	ON TYPE
LAST 90 DAYS:	4	ALL TYPES	4	ON TYPE

DAMAGE: Minor
CASUALTIES: Crew: 1 uninj;
OCCURRENCE: The pilot was planning a short local flight to transfer fuel. He reported that after take-off, he climbed to 2000 feet and adjusted for cruise conditions. It was only then he became aware that the landing gear up lights were not illuminated. Although the gear appeared to be in the "up" position, it could not be confirmed.

The pilot then diverted to a frozen lake where he could land into wind. After selecting the gear down, the lights still would not indicate down and locked. When visually inspected the main gear appeared to be down.

After touchdown, the pilot reported that both main gears were down and locked. He discovered the nosewheel fork was damaged, the wheel doors were out of alignment, and the nosewheel was jammed off centre. While attempting to taxi, the aircraft hit a crevice shearing off the nosewheel.

The pilot stated that take-off was in a "heavy cross-wind condition" and the nosewheel may have cocked before retraction.

84-40001

Bellanca 7ECA

C-GDVV

DATE: 8 Jan 1984 1220 EST
OPERATION: Flying Club training
PLACE: Brampton Arpt Ont 43/46N 79/53W
LOCALE: Paved runway 2200' by 75' 900' asl
WEATHER: Wind NW 6 kt vis 21/2 snow showers cloud 1500' broken temp -4°C
PILOT: Commercial
TOTAL HOURS: 2950 ALL TYPES 150 ON TYPE
LAST 90 DAYS: 10 ALL TYPES 6 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 2 uninj.
OCCURRENCE: The pilot at the controls was undergoing a 30 day recurrent type check and was being monitored by an instructor from the rear seat. Following a normal take-off and circuit, the final approach was flown at an airspeed of 70 mph and 1500 rpm. According to the instructor the approach path was slightly flat but it appeared the aircraft would touch down well inside the button of the runway. As the aircraft neared the end of the runway, the instructor glanced inside the cockpit to check the position of the carburettor heat control lever and felt the aircraft sink. The two main wheels of the landing gear contacted the snow covered surface about 60 feet short of the runway, the aircraft pitched nose-down and came to rest inverted.

The investigation did not reveal any mechanical failure that would contribute to the accident. Examination of the approach end of the runway did not reveal any evidence of snow banks or other obstructions; the area was level covered by about 18 inches of snow. Atmospheric white-out conditions probably existed at the time and it is likely this contributed to the pilots misjudging their altitude during the final stage of the visual approach.

84-40002

Cessna 172P

C-GDHS

DATE: 22 Feb 1984 1640 EST
OPERATION: Flying Club Recreation
PLACE: Waterloo-Wellington Arpt Ont 43/28N 80/23W
LOCALE: Paved runway 3700' by 150' 1031' asl
WEATHER: Wind SSW 10 kt vis 10 cloud 24000' scattered temp 8°C
PILOT: Private
TOTAL HOURS: 93 ALL TYPES 79 ON TYPE
LAST 90 DAYS: 0 ALL TYPES 0 ON TYPE

DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj; pass: 1 uninj.
OCCURRENCE: While landing, the aircraft touched down in the grass about 75 feet short of the runway and struck a 2 foot high snowbank located 40 feet from the runway. When the aircraft struck the snowbank the nose gear and right main gear were damaged. The aircraft bounced up and landed on the runway, continuing down the runway for 1,350 feet before veering to the right and stopping in the infield.

While on approach, the setting sun produced a bright glare on the end of the runway, making it difficult to judge distance and height. The glare also made the snowbank appear to be no more than a flat patch.

During ten years of flying, the pilot had accumulated less than 100 hours flying time, and this was his first landing in over three months.

84-40003

Bell 47G2

C-FLMF

DATE: 16 Feb 1984 1105 EST
OPERATION: Private business
PLACE: 5 mi NW of Chapleau Ont 47/49N 83/21W
LOCALE: Rolling snow and tree-covered bush
WEATHER: Wind S 10 kt vis 15 cloud 23000' broken temp 3°C
PILOT: Private
TOTAL HOURS: 251 ALL TYPES 176 ON TYPE
LAST 90 DAYS: 13 ALL TYPES 13 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 minor; pass: 1 minor
OCCURRENCE: The pilot stated the engine lost power so he carried out an autorotation into the trees. Technical investigation could not find any reason for the reported loss of power. With the temperature of 3 degrees Celcius, and dew point -5 degrees Celsius, carburettor icing may have occurred.

All indications were that the pilot allowed the helicopter to enter into a condition where the power required to prevent the descent, was greater than the power available.

The pilot's helmet probably saved him from serious injury as his head was caught between the door and the door frame.

84-40005

Mooney M20J

C-GGBY

DATE: 26 Feb 1984 1245 EST
OPERATION: Private recreation
PLACE: Arnprior/South Renfrew Arpt Ont 45/25N 76/22W
LOCALE: Paved runway 2500' by 150' 358' asl
WEATHER: Wind WNW 15 kt vis 15+ sky clear temp -10°C
PILOT: Commercial
TOTAL HOURS: 450 ALL TYPES 140 ON TYPE
LAST 90 DAYS: 10 ALL TYPES 10 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj.
OCCURRENCE: The pilot failed to lower the gear for landing. The warning horn which he had recently adjusted, did not activate during the approach or landing.

84-40006

Cessna 152

C-GZJS

DATE: 4 Mar 1984 1445 EST
OPERATION: Specialty training
PLACE: Barrie Airport Ont 44/29N 79/44W
LOCALE: Snow-covered grass runway 1800' by 125' 950' asl
WEATHER: Wind NW 5 kt vis 15+ sky clear temp 4°C
PILOT: Student
TOTAL HOURS: 21 ALL TYPES 21 ON TYPE
LAST 90 DAYS: 21 ALL TYPES 21 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj.
OCCURRENCE: The pilot reported that the aircraft became airborne at too low an airspeed after striking a rut in the runway. He was unable to maintain control, and the crosswind drifted the aircraft left. The left wheel sank into snow at the edge of the runway causing the aircraft to swerve and nose down.

84-40007

Cessna 152

C-GBBA

DATE: 3 Mar 1984 0936 EST
OPERATION: Specialty training
PLACE: Earlton Arpt Ont 47/42N 79/51W
LOCALE: Gravel runway 3018' by 150' 772' asl
WEATHER: Wind NW 10 kt vis 15+ sky clear temp -8°C
PILOT: Student
TOTAL HOURS: 16 ALL TYPES 16 ON TYPE
LAST 90 DAYS: 13 ALL TYPES 13 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj.
OCCURRENCE: The pilot was on his first solo take-off, following one hour of dual instruction. He lost control of the aircraft so he closed the throttle; the aircraft ran into a snowbank beside the runway.

84-40009

Cessna 170A

C-FMGM

DATE: 10 Mar 1984 1300 EST
OPERATION: Private recreation
PLACE: Hurds Lake Ont 45/24N 76/40W
LOCALE: Hilly tree-covered area bordering lake
WEATHER: Wind SE 6 kt vis 15 cloud 22000' broken temp -8°C
PILOT: Private
TOTAL HOURS: 100 ALL TYPES 47 ON TYPE
LAST 90 DAYS: 25 ALL TYPES 25 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 serious; pass: 2 serious
OCCURRENCE: The pilot taxied to the west shore of the lake and took off in an easterly direction. The aircraft stalled and crashed into trees shortly after crossing the opposite shoreline.

Considering the wind conditions, the heavily loaded aircraft, and the rising terrain surrounding the lake, the area selected for the take-off was of marginal length. Also, the flaps should have been raised slowly after climb-out was established. Although the pilot had been airborne for about 3000 ft and was about 75 ft over the trees, he had not raised the flaps from the 25 degree take-off setting. This would degrade the climb performance of the aircraft.

The aircraft was loaded just under the maximum allowable gross weight for take-off. The pilot had obtained his licence two months previously and he had no experience flying the aircraft near its maximum weight.

84-40010

Aeronca S7EC

CF-ETD

DATE: 17 Mar 1984 0900 EST
OPERATION: Private recreation
PLACE: Onaman Lake Ont 50/00N 87/26W
LOCALE: Snow-covered frozen lake
WEATHER: Not significant
PILOT: Private
TOTAL HOURS: 131 ALL TYPES 99 ON TYPE
LAST 90 DAYS: 11 ALL TYPES 11 ON TYPE
DAMAGE: None
CASUALTIES: Crew: 1 uninj; other: 1 serious
OCCURRENCE: After landing, the pilot taxied the aircraft to a position about 25 feet from some ice fishermen. He shut down the engine and as the propeller ran down, a fisherman ducked under the wing and was struck by the still-rotating propeller.

The fisherman was attracted by a moving fishing line and proceeded towards the propeller until he was struck.

84-40012

GL 6 (Homebuilt)

C-GFIJ

DATE: 1 Apr 1984 1000 EST
OPERATION: Private testing
PLACE: near Brantford Arpt Ont 43/08N 80/22W
LOCALE: Flat muddy field
WEATHER: Wind SW 8 kt vis 15 + cloud 25000' broken temp 8°C
PILOT: Private
TOTAL HOURS: 3000 ALL TYPES 0 ON TYPE
LAST 90 DAYS: 25 ALL TYPES 0 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj.
OCCURRENCE: The pilot was conducting a test flight of the home built aircraft. After a ground runup of about 1 hour because the 2-cycle engine was emitting excessive smoke, the operation improved, so he took off. As soon as he was airborne the engine began to lose power until height could not be maintained. The pilot landed in a plowed field damaging the gear and left wing.

The cause of the engine failure could not be determined. Incorrect mixture, lubrication, and lack of cooling may have caused overheating and progressive loss of power until the engine seized. This would not be detectable when the engine cooled.

84-40013

Cessna 150M

C-GEUW

DATE: 8 Apr 1984 1325 EST
OPERATION: Flying Club Training
PLACE: Iroquois Falls Arpt Ont 48/44N 80/48W
LOCALE: Paved runway 3000' by 75' 1008' asl
WEATHER: Wind SE 5 kt vis 15 + sky clear temp -2°C
PILOT: Student
TOTAL HOURS: 18 ALL TYPES 18 ON TYPE
LAST 90 DAYS: 12 ALL TYPES 11 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj.
OCCURRENCE: The pilot stated that during take-off he noticed that he still had landing flaps selected. While he was looking at the flap indicator and trying to locate the flap switch, the left wheel contacted a drift on the runway edge and the aircraft nosed over inverted. The use of a checklist would probably have prevented this accident.

84-40023

Cessna 180

C-FICJ

DATE: 23 May 1984 1430 EDT
OPERATION: Private recreation
PLACE: Grand Bend Ont 43/17N 81/43W
LOCALE: Paved runway 2590' by 150' 642' asl
WEATHER: Wind WNW 12 kt vis 15 + cloud 3000' bkn temp 16°C
PILOT: Private
TOTAL HOURS: 540 ALL TYPES 199 ON TYPE
LAST 90 DAYS: 1 ALL TYPES 1 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj.
OCCURRENCE: The aircraft was being ferried to the airfield where the annual CCI was to be carried out. Neither the pilot nor the aircraft had flown for over seven months.

During the landing roll the pilot was unable to maintain directional control. The aircraft swerved to the right and ground looped.

The pilot reported that the brakes were ineffective in preventing the turn. The brak discs were found to be deeply pitted due to rust. This would reduce the braking effectiveness.

81-P10121

Cessna 402B

C-GDIC

DATE: 15 November 1981, 1342PST
OPERATION: Private business
PLACE: Abbotsford, B.C. 49/02N 122/22W
LOCALE: Cultivated field on airport 190' ASL
WEATHER: Wind N 14kt, vis 15, cloud 3500' broken, temp. 9°C.
PILOT: Commercial
TOTAL HOURS: 794 ALL TYPES 182 ON TYPE
LAST 90 DAYS: 19 ALL TYPES 19 ON TYPE
DAMAGE: Destroyed
CASUALTIES: Crew: 1 fatal; Pass: 1 fatal, 3 serious.
OCCURRENCE: The pilot planned to fly this aircraft, with five passengers, to Mexico in the near future. Therefore, he wanted to practice emergency procedures with a similar load onboard. He and four friends, three of them also licensed pilots, flew from Vancouver to Abbotsford. While there, they spent approximately an hour-and-a-half doing circuits with touch-and-go landings, simulating engine failures in various flight configurations. The four pilots took turns flying the aircraft; they changed runways at will, as the wind and traffic were light. Several witnesses observed the aircraft in unusually tight turns at low level, during the simulated single-engine procedures.

The original pilot occupied the left seat for the return flight to Vancouver. The aircraft was cleared, as requested, to depart runway 06, turn through 180 degrees, touch-and-go on runway 24, then climb on course. After take-off from runway 06, the aircraft entered a steep turn to the left and stalled. It impacted the ground in a right-wing-low attitude, cartwheeled across a road, came to rest inverted, and burned.

Investigation revealed no evidence of failure or malfunction of the airframe, engines, or controls before impact.

83-P30022

Bell 206B

C-GKMO

DATE: 20 Apr 1983 1200 PST
OPERATION: Specialty control
PLACE: 10 miles SW of Cassidy Arpt BC 49/30N 129/04W
LOCALE: Slash burn area in tree-covered hills
WEATHER: Wind ENE 4 kt vis 15 + cloud 9000' overcast temp 11°C

PILOT: Commercial
TOTAL HOURS: 4400 ALL TYPES 3700 ON TYPE
LAST 90 DAYS: 15 ALL TYPES 15 ON TYPE
DAMAGE: Destroyed
CASUALTIES: Crew: 2 uninj.
OCCURRENCE: The helicopter pilot was engaged in a post-logging, slash burning operation. The procedure employed an aerial ignition system which dispensed incendiary balls from approximately 100 feet above the ground. The dispenser injects ethylene glycol into the incendiary ball (containing potassium permanganate), causing a spontaneous combustion reaction within the plastic ball; this provides an ignition source for the slash once it is dropped from the dispenser.

As the pilot started his third line over the slash, he heard a muffled explosion followed by slight aircraft yaw. Smoke began to fill the cabin as the pilot engaged in a rapid descent. On touchdown, both occupants escaped; however, the large supply of incendiary balls combined with the aircraft fuel supply, increased the rate and intensity with which the helicopter burned. Little remained in the wreckage that could be used to isolate the fire source.

The sound of the explosion came from the engine area just after smoke (unlike that of the incendiary balls) was seen coming from an engine compartment drain. Tests suggest that it is unlikely that a contaminant inadvertently reacted with the incendiary balls prior to their deployment in the dispenser. An engine related malfunction may have contributed to the initial blaze, however, the extent of fire damage precluded any determination.

83-P30030

SE5A Replica

C-GJVF

DATE: 23 May 1983 1445 MDT
OPERATION: Private recreation
PLACE: 13 nm E of Cranbrook BC 49/29N 115/27W
LOCALE: Tree-covered hills 2600' asl
WEATHER: Wind W 16 kt vis 25 cloud 7000' ovc temp 24°C
PILOT: Private
TOTAL HOURS: 500 ALL TYPES 200 ON TYPE
LAST 90 DAYS: 2 ALL TYPES 2 ON TYPE
DAMAGE: Destroyed
CASUALTIES: Crew: 1 serious.
OCCURRENCE: The pilot was checking the effects of modifications to the aircraft. He carried out normal manoeuvres, including stalls and steep turns, then entered a dive to pick up speed before climbing vertically. He does not remember what happened at the top of the climb, and thinks he may have been inverted, but the aircraft entered a spin to the right and recovery proved impossible. He applied up elevator just before the aircraft struck trees, cushioning the impact.

The pilot had built the aircraft, and had recently added ailerons to the upper wing, and made minor modifications to the rudder and stabilizer. The pilot felt that he was not getting enough left rudder during recovery attempts. It was found that the left rudder cable attachment pin had failed, but this was attributed to impact loads, since 150 lb of foot pressure would have been required to cause the failure in the air. It was determined that the unmodified aircraft recovered well from spins, and it was felt that none of the modifications would have affected this ability to a great extent; therefore, the cause of the accident remains undetermined. (LP 216/83 refers)

83-P30034

Cessna 180B

CF-LCA

DATE: 3 Jun 1983 2015 PDT
OPERATION: Private recreation
PLACE: Pacific Lake BC 54/24N 121/34W
LOCALE: Lake in mountainous area 2400' asl
WEATHER: Wind NNE 4 kt vis 15+ cloud 5000' scattered temp 15°C
PILOT: Private licence
TOTAL HOURS: 1000 ALL TYPES 250 ON TYPE
LAST 90 DAYS: 2 ALL TYPES 2 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 fatal
OCCURRENCE: The passengers reported the flight was uneventful. From their drop off point at the cabin, they watched the pilot take off from the narrow, mountain-ringed lake. Still in the initial climb, the engine stopped abruptly and the aircraft was seen to bank slightly before going out of sight. Shortly after, the engine roared back to life, then within one or two seconds a loud bang was heard. The aircraft was found overturned and floating near the shore at the end of the lake. The pilot had drowned. He apparently had attempted to swim to shore in the frigid water, but succumbed to his injuries.

The cause of the accident could not be determined. The engine was developing substantial power at impact. Wreckage indicated the right wing and float hit the water first, and the aircraft fell on its back. When the engine roared back to life, it may have been so sudden that the pilot lost control of the aircraft.

It could only be speculated that carb ice formed, as the pilot spent an extended time on the run-up. In addition, the possibility of water ingestion could not be discounted as the aircraft had been parked outside and hardly flown for over seven months. Although the pilot was using purple auto gas, there was nothing to indicate it caused the problem.

The aircraft was not equipped with an ELT. Luckily there was no search required. In any case, only ELT types W or S are waterproof and work when immersed in water.

83-P30044

Cessna 140

CF-PIW

DATE: 24 Jul 1983 1645 PDT
OPERATION: Private recreation
PLACE: McBride BC 53/19N 120/10W
LOCALE: Paved runway 2700' by 75' 2350' asl
WEATHER: Wind VRB 35G40 kt vis 5 cloud ovc temp 19°C
PILOT: Private
TOTAL HOURS: 125 ALL TYPES 25 ON TYPE
LAST 90 DAYS: 20 ALL TYPES 20 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj; pass: 1 uninj.
OCCURRENCE: About 20 minutes out of Prince George (following the Fraser River to McBride), the pilot encountered moderate rain at 7,500 feet. The pilot sighted the airport as he was descending through 5,000 feet. At this time, he encountered moderate turbulence which increased as the aircraft approached the aerodrome. On final, the airspeed varied from 50 to 80 mph and when the pilot began to flare, the aircraft dropped to the runway. The right wing tip touched the grass area, the right landing gear collapsed, and the aircraft came to rest in the grass infield.

The pilot checked the weather as he overflew Prince George; he was told about rain and thunderstorms in the vicinity, but decided to continue to McBride.

83-P30045

Taylorcraft F19

C-GIEK

DATE: 22 Jul 1983 1630 PDT
OPERATION: Private recreation
PLACE: Seymour Arm Strip BC
LOCALE: Turf runway 3200' by 35' 1148' asl
WEATHER: Wind light vis 15+ sky clear temp 29°C
PILOT: Private licence
TOTAL HOURS: 540 ALL TYPES 410 ON TYPE
LAST 90 DAYS: 39 ALL TYPES 38 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj.
OCCURRENCE: Although unfamiliar with the private turf strip, the pilot did not inquire into its condition prior to the flight (as recommended in the VFR Supplement). Shortly after touchdown, the aircraft ground looped when the right wheel struck sandy soil; as a result, the right landing gear broke, bending the propeller.

83-P30051

Ercoupe 415C

C-FFEV

DATE: 13 Aug 1983 1657 PDT
OPERATION: Private recreation
PLACE: 8 nm S of Moyie BC 49/14N 115/54W
LOCALE: Tree-covered mountains 3100' asl
WEATHER: Wind WSW 10 kt vis 25 sky clear temp 27°C
PILOT: Private
TOTAL HOURS: 150 ALL TYPES 70 ON TYPE
LAST 90 DAYS: 15 ALL TYPES 15 ON TYPE
DAMAGE: Destroyed
CASUALTIES: Crew: 1 fatal; pass: 1 fatal
OCCURRENCE: The aircraft broke up while the pilot and passenger were on a pleasure flight. The only known witness was not able to describe the aircraft manoeuvres or attitude prior to the break-up.

Steeply sloping terrain and dense bush prevented investigators from locating all components including the right aileron. Relationships between the various portions of the aircraft were impossible to establish as was the direction of flight, and flight path angle.

Laboratory analysis determined that the right wing spar had failed in negative overload. No material or manufacturing deficiencies were found which would contribute to the failure.

Blood sample analysis determined that both the pilot and his passenger had consumed alcohol prior to the flight. The analysis indicated that both blood/alcohol levels exceeded the legal limit for motor vehicle operation.

Investigators concluded the break-up was initiated by the failure of the wing spar. It is likely that failure was induced by some flight manoeuvre attempted by the pilot. Impaired judgement due to alcohol consumption was an apparent factor. (LP 311/83)

83-P30053

Cessna 180H

C-FSXA

DATE: 15 Aug 1983 1230 PDT
OPERATION: Private recreation
PLACE: Prince George BC 53/53N 122/41W
LOCALE: Rolling grass-covered field 2250' asl
WEATHER: Wind calm vis 60 cloud 4500 sct temp 17°C
PILOT: Private

TOTAL HOURS:	1679	ALL TYPES	419	ON TYPE
LAST 90 DAYS:	36	ALL TYPES	36	ON TYPE

DAMAGE: Substantial**CASUALTIES:** Crew: 1 uninj.

OCCURRENCE: The pilot of the float-equipped aircraft was on approach for a water landing when the engine suddenly stopped. Unable to reach his intended landing area, he made a forced landing in a field. The aircraft slid along the grass for 200 yards then slowly went over on its back.

The pilot departed 2 days earlier with a full fuel load. After a 3 hour flight he landed and added 5 gallons to the left tank from a plastic container he carried on board. The container was refilled and after a 2 hour 40 minute flight, the pilot landed on a river and again added 5 gallons to the left tank. After another short flight, the pilot landed on a lake, went to a local gas station and picked up 5 gallons of automobile gasoline which he added to the left tank before taking off for home.

The engine stopped 2 miles from destination due to fuel exhaustion. The fuel used coincided with the aircraft's fuel consumption specifications.

83-P30054

Cessna 170

C-FKVG

DATE: 16 Aug 1983 1940 PDT
OPERATION: Private recreation
PLACE: 7 mi SE of Kitimat BC 53/59N 128/38W
LOCALE: Tree-covered mountains 1320' asl
WEATHER: Wind S cloud 800' overcast with rain temp 15°C
PILOT: Commercial

TOTAL HOURS:	366	ALL TYPES	56	ON TYPE
LAST 90 DAYS:	15	ALL TYPES	15	ON TYPE

DAMAGE: Destroyed**CASUALTIES:** Crew: 1 fatal; Pass: 1 fatal.

OCCURRENCE: The pilot departed on a VFR flight into an area of low overcast ceilings and reduced visibility in fog and rain.

During the flight, the pilot may have penetrated clouds or flown between cloud layers. In any event, just prior to impact, it appears he was descending through a cloud layer to return to full visual conditions. Probably unaware that his aircraft had drifted over higher terrain, and assuming he had adequate clearance, he descended into the trees.

The reason the pilot continued his flight in deteriorating conditions could not be determined.

83-P30055

Cessna 185F

C-FGUU

DATE: 16 Aug 1983 1700 PDT

OPERATION: Private recreation

PLACE: Johnston Lake BC 53/53N 129/28W

LOCALE: Lake water area in mountainous region

WEATHER: Wind calm vis 10 cloud 2000' ovc temp 12°C

PILOT: Private

TOTAL HOURS: 1900 ALL TYPES 1450 ON TYPE

LAST 90 DAYS: 60 ALL TYPES 60 ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; Pass: 3 uninj.

OCCURRENCE: The pilot decided to take off in marginal conditions to check the weather. His intention was to immediately circle back to the lake if conditions were unsuitable. It had been raining heavily and, as he taxied out, the clothing on his three soaked passengers caused the inside windows to steam up.

Soon after take-off, the pilot realized he could not proceed and circled back to land, clearing the fogged windshield as he turned. He misjudged his height nearing the water and struck prematurely, breaking both front float struts.

He apparently did not consider the glassy water conditions and poor water/ground definition before taking off. Also, the fogged windshield aggravated the situation.

83-P30056

de Havilland DHC2

C-FOCH

DATE: 15 Aug 1983 1700 PDT

OPERATION: Private recreation

PLACE: Johnston Lake BC 53/53N 129/28W

LOCALE: Lake water area surrounded by mountains

WEATHER: Wind light and variable vis 3 cloud 900' overcast with drizzle
temp 18°C

PILOT: Commercial

TOTAL HOURS: 5000 ALL TYPES 1500 ON TYPE

LAST 90 DAYS: 16 ALL TYPES 16 ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj.

OCCURRENCE: After touchdown on the glassy water surface, the amphibious aircraft swung violently to the left then to the right striking the lake surface with both wing tips. The aircraft nosed down submerging the engine but uprighted itself and came to rest in a normal attitude. It could not be determined what caused the swing.

83-P30059

Bell 206B

C-GTEZ

DATE: 22 Aug 1983 0835 PDT

OPERATION: Charter

PLACE: Llewellyn Glacier BC 58/59N 134/08W

LOCALE: Snow and ice-covered mountains 5800' asl

WEATHER: Wind S 30G40 kt vis 3 cloud 200' bkn temp 4°C

PILOT: Commercial

TOTAL HOURS: 1450 ALL TYPES 1350 ON TYPE

LAST 90 DAYS: 150 ALL TYPES 150 ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj.

OCCURRENCE: The pilot was delivering supplies to a campsite on a glacier at about 6000 feet asl. As the aircraft approached, the weather deteriorated so there was little horizontal reference in the totally white environment. Using the tents as reference, the pilot felt that he was well above the snow surface but the right skid dug into the snow; the helicopter rolled right and came to rest on its side.

83-P30060

Bell 206L-1

C-GQZP

DATE: 22 Aug 1983 1315 PDT
OPERATION: Specialty construction
PLACE: 7 nm SW of Misery Creek BC 49/39N 123/41W
LOCALE: Mountainous area 500' asl
WEATHER: Wind WSW 4 kt vis 15+ sky clear temp 20°C
PILOT: Commercial Rotorcraft
TOTAL HOURS: 8000 ALL TYPES 2000 ON TYPE
LAST 90 DAYS: 300 ALL TYPES 300 ON TYPE
DAMAGE: Destroyed
CASUALTIES: Crew: 1 serious.
OCCURRENCE: The pilot was engaged in stringing leaders for a powerline construction project. While hovering beside a transmission tower to pick up a cable, the main rotor struck another cable which was loosely suspended from the centre arm of the tower. The helicopter went out of control, crashed and rolled down the slope. The pilot escaped, then the machine was destroyed by fire.

The pilot was highly experienced and thoroughly familiar with the job. He was of the view that the cable had been pulled up into the rotor. The ground working party said the cable was definitely not pulled, and the pilot must have drifted into the slack cable. The actual sequence of events leading to the cable strike could not be determined.

83-P30061

Piper PA-22

C-FLHB

DATE: 25 Aug 1983 1915 PDT
OPERATION: Private recreation
PLACE: 100 Mile House BC 51/39N 121/18W
LOCALE: Paved runway 1900' by 46' 3055' asl
WEATHER: Wind calm Vis 20 cloud 3000' OVC temp 18° C
PILOT: Private
TOTAL HOURS: 260 ALL TYPES 40 ON TYPE
LAST 90 DAYS: 10 ALL TYPES 10 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj; pass: 3 uninj.
OCCURRENCE: After a short uneventful local flight, the pilot returned for landing. He reported that shortly after touchdown, a swing to the left developed and he was unable to maintain directional control. The aircraft ran off the left side of the runway collapsing the right main gear.

83-P30063

Cessna 182D

C-FWJV

DATE: 2 Sep 1983 2015 PDT
OPERATION: Private business
PLACE: Tumbler Ridge BC 53/03N 120/57W
LOCALE: Grass runway 2600' long 2450' ASL
WEATHER: Wind Vble 26G35 kt vis 15+ sky OVC temp 12° C
PILOT: Private
TOTAL HOURS: 2500 ALL TYPES 2300 ON TYPE
LAST 90 DAYS: 25 ALL TYPES 25 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj; pass: 2 uninj.
OCCURRENCE: On arrival at destination, the pilot assessed the wind and elected to land from north to south. Due to tall trees on the approach path, and gusting and variable winds (shifting up to 90 degrees) the pilot decided to overshoot.

The second approach was free of obstructions, so the pilot felt that with a low flat approach, he could compensate for the downwind condition. He touched down about one fifth of the way down the strip but could not stop. The aircraft ran off the end into a ravine.

83-P30064

Cessna U206B

C-GFER

DATE: 3 Sep 1983 1035 PDT
OPERATION: Private recreation
PLACE: Wyers Field Kelowna BC 49/51N 119/25W
LOCALE: Grass-covered airstrip 2000' by 20' 2000' asl
WEATHER: Wind calm vis 15 + cloud 11000' broken temp 19°C
PILOT: Airline Transport
TOTAL HOURS: 3000 ALL TYPES 80 ON TYPE
LAST 90 DAYS: 45 ALL TYPES 35 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj.
OCCURRENCE:

During the landing roll on a relatively smooth grass runway, the aircraft started to turn slowly to the right. The pilot applied left rudder to correct, but could feel no resistance from the nosewheel steering. The nosewheel turned 90 degrees to the direction of travel and sheared off at the nosewheel fork attachment bolts. The nose dropped, digging into the runway surface, and the aircraft nosed-over inverted.

Examination determined the nosewheel steering collar had fractured, causing the pilot to lose directional control. The collar failed in instantaneous overload as a result of two high cycle, low stress multiple origin fatigue cracks. The steering collar was of an old design which is no longer installed during manufacture. This design appears to be susceptible to fatigue cracking as a result of normal operational loads.

83-P30065

Cessna A185F

C-FJNQ

DATE: 12 Sep 1983 1100 PDT
OPERATION: Charter
PLACE: Kwatna BC 52/02N 127/36W
LOCALE: Grass and gravel strip 3000' long
WEATHER: Wind calm vis 5 cloud 3000' overcast with light rain
PILOT: Senior Commercial
TOTAL HOURS: 6000 ALL TYPES 175 ON TYPE
LAST 90 DAYS: 2000 ALL TYPES 70 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj; pass: 2 uninj.
OCCURRENCE:

The pilot was landing on a section of logging road also used as an airstrip, with a width varying from 50 to 300 feet. To remain clear of a rough area on the right side of the strip, the pilot touched the aircraft down on the left side. He misjudged his clearance and the aircraft's left wing tip struck several large trees. The aircraft swung left, the pilot lost directional control and the machine came to rest after striking a 45 gallon fuel drum.

83-P30066

Piper PA22-160

C-GIDI

DATE: 13 Sep 1983 1250 PDT
OPERATION: Private business
PLACE: 4 mi SW of Mt Scaia BC 49/50N 118/25W
LOCALE: Grass-covered mountain 6700' ASL
WEATHER: Wind SSW 4 kt vis 20 cloud 9000' SCT temp 18°C
PILOT: Private
TOTAL HOURS: 2787 ALL TYPES 151 ON TYPE
LAST 90 DAYS: 83 ALL TYPES 59 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj.
OCCURRENCE:

On arrival at the airstrip, a normal approach was carried out. On touchdown the aircraft flipped over, the pilot having landed with his feet on the toe brakes.

The pilot made several trips into the site the same day; however, he switched aircraft for the last trip. The previous aircraft was equipped with heel brakes.

83-P30067

Piper PA-20

CF-SBN

DATE: 18 Sep 1983 1250 PDT (approx)
OPERATION: Private recreation
PLACE: Butler-Howroyd Field BC 48/33N 123/25W
LOCALE: Grass runway 350' asl
WEATHER: Unknown
PILOT: Unknown
TOTAL HOURS: Unknown ALL TYPES Unknown ON TYPE
LAST 90 DAYS: Unknown ALL TYPES Unknown ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj.
OCCURRENCE: On landing, the touchdown was late and the aircraft overran the strip and hit trees. Investigators have not been able to contact the pilot so details are still not known.

83-P30069

Cessna 177B

C-GHIG

DATE: 23 Sep 1983 1240 PDT
OPERATION: Private recreation
PLACE: Richmond BC 49/07N 123/04W
LOCALE: Hay field
WEATHER: Wind E 2 kt vis 10 cloud 5000' scattered temp 18°C
PILOT: Commercial
TOTAL HOURS: 318 ALL TYPES 1 ON TYPE
LAST 90 DAYS: 19 ALL TYPES 1 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 serious
OCCURRENCE: The aircraft was on its first flight since the C of A renewal. Shortly after overshooting an approach to an enroute airport, the engine failed. While in a steep turn at low altitude, the aircraft was seen to enter a spin; it struck the ground in a wings level attitude, at a high rate of descent and with relatively low forward speed.

A failed oil pump resulted in loss of lubrication and engine seizure. The oil pump failed when chafed aluminum material from the aluminum impeller adhered to its shaft and seized it. The cause of the chafing could not be determined.

83-P30071

Cessna 177

C-FWXH

DATE: 1 Oct 1983 1326 PDT
OPERATION: Private - other - SAR
PLACE: 15 nm W of Cranbrook Arpt BC 49/36N 116/08W
LOCALE: Tree-covered mountains
WEATHER: Wind E 10 kt vis 25 sky clear temp 9°C
PILOT: Private
TOTAL HOURS: 330 ALL TYPES 145 ON TYPE
LAST 90 DAYS: 12 ALL TYPES 12 ON TYPE
DAMAGE: Destroyed
CASUALTIES: Crew: 1 serious; pass: fatal, 1 serious
OCCURRENCE: The pilot and passengers were participating in a simulated search exercise under the auspices of the Provincial Emergency Program. The specific exercise called for searching at an altitude of 1500 ft agl in a mountainous area. After spotting what appeared to be the search object, the pilot descended to have a closer look. On climbout, the aircraft could not outclimb rising terrain, so the pilot attempted a steep turn. During the turn the aircraft descended into trees. Structural damage occurred at impact and fire consumed the aircraft.

The pilot had attended a pre-exercise briefing which included search techniques in mountainous terrain. Emphasis had been placed on preventing situations where there would be a requirement to outclimb rising terrain and perform low altitude tight turns.

It was apparent that in disregard to the briefing procedures, the pilot placed the aircraft in a position where it could not outclimb rising terrain. It was also evident that the pilot had limited experience in mountain flying and that the Emergency Program does not require a minimum amount of experience for pilots participating in related exercises.

83-P30073

Piper PA-12

C-FVOE

DATE: 1 Oct 1983 1050 PDT
OPERATION: Private business
PLACE: Itcha Mountain BC 52/43N 124/59W
LOCALE: Grass-covered mountain 6500' asl
WEATHER: Wind 12 kt vis 15+ sky clear temp 5°C
PILOT: Commercial
TOTAL HOURS: 2600 ALL TYPES 100 ON TYPE
LAST 90 DAYS: 76 ALL TYPES 24 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj; pass: 2 uninj.
OCCURRENCE: The pilot was attempting to land in an area of tufted grass at the 6500 feet level of a mountainous region. He reported that after several low passes, he intended to run the wheels along the ground as a final check before landing. During the attempted go-around, he had difficulty getting the aircraft airborne again. It passed beyond the flat area into an area of undulations collapsing the gear and damaging the propeller and wing tips.

83-P30074

Cessna 172E

C-FPXP

DATE: 23 Sep 1983 1232 PDT
OPERATION: Specialty advertising
PLACE: Delta Air Park BC 49/05N 122/56W
LOCALE: Grass runway 2300' by 200' by asl
WEATHER: Wind ESE 6 kt vis 10 sky clear temp 18°C
PILOT: Commercial
TOTAL HOURS: 200 ALL TYPES 100 ON TYPE
LAST 90 DAYS: 10 ALL TYPES 10 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj.
OCCURRENCE: The pilot reported that on take-off, he struck something in the long grass. This caused him to temporarily lose control and the aircraft struck trees and a fence. Nothing could be found in the grass to account for the obstruction.

The banner towing aircraft managed to continue flight and carry out an emergency landing at a nearby airport.

83-P30075

Beech 100

C-GXVX

DATE: 14 Oct 1983 1600 PDT
OPERATION: Commercial non-revenue
PLACE: Vancouver Int'l Arpt BC 49/11N 123/11W
LOCALE: Paved runway 7300' by 200' 9' asl
WEATHER: Wind W 7 kt vis 15+ sky clear temp 15°C
PILOT: Airline Transport
TOTAL HOURS: 3600 ALL TYPES 1500 ON TYPE
LAST 90 DAYS: 120 ALL TYPES 60 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 2 uninj.
OCCURRENCE: The aircraft was being ferried from Kamloops, where it had been painted, to Vancouver, for further work.

When the gear was selected down for landing, it responded but then quickly stopped; when selected up it did not move. The cabin then filled with smoke so the gear circuit breaker was pulled. Smoke evacuation procedures proved ineffective, but the situation was not severe enough to make the environment untenable. Attempts to lower the gear with the emergency system were unsuccessful.

After consulting a Beech engineering expert, the air maintenance engineer managed, with great difficulty, to disconnect the main wheel drives from the activating system, and effect a manual lowering using water pump pliers. The nosewheel gear was jammed at about the 45 degree extended position.

The aircraft landed on the main gear with engines feathered on touchdown, then the partially extended nose gear collapsed.

Investigation showed that the nose gear actuator nut assembly shaft had been painted by mistake, causing the assembly to bind, and preventing the gear from extending or retracting. (LP 406/83)

83-P30076

Piel Emeraude

C-GDRR

DATE: 19 Oct 1983 1834 PDT
OPERATION: Private recreation
PLACE: 1 nm N of Horsefly BC 52/21N 121/25W
LOCALE: Gravel road in mountainous area
WEATHER: Wind SE 12 kt vis 15 cloud 15000 broken temp 6°C
PILOT: Private
TOTAL HOURS: 175 ALL TYPES 25 ON TYPE
LAST 90 DAYS: 7 ALL TYPES 7 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj.
OCCURRENCE: The pilot became lost and disoriented as darkness was approaching. The FSS attempted to aid the pilot by giving him a DF steer but radio communications were poor. When messages were relayed from another aircraft, the pilot was not able to follow headings because of the darkness and lack of instrument lights.

He elected to make a precautionary landing on a gravel road. The landing was hard; the gear collapsed, then the aircraft struck a sign post and several fence posts.

83-P30078

Cessna 180D

CF-MSN

DATE: 13 Nov 1983 1530 PST
OPERATION: Specialty recreation
PLACE: 10 mi E of Vanderhoff BC 53/58N 123/49W
LOCALE: Rolling snow covered cultivated field
WEATHER: Wind light sky OBS with fog
PILOT: Commercial
TOTAL HOURS: 695 ALL TYPES 400 ON TYPE
LAST 90 DAYS: 15 ALL TYPES 15 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj; pass: 1 minor, 2 uninj.
OCCURRENCE: The VFR flight between Terrace and Quesnel had commenced after the pilot had obtained a weather briefing and filed a flight note. The area forecast indicated weather adverse for VFR flight along portions of the route.

Although a lowering ceiling and "a lot of fog" were encountered near Vanderhoff, the pilot pressed on. The pilot was unable to find his destination airport in the fog and selected a snow- covered stubble field for a precautionary landing.

He touched down, bounced, and following heavy braking, the aircraft nosed over in the snow. It could not be determined why the pilot persisted in flying into deteriorating weather.

83-P30079

Cessna 177RG

C-GJXV

DATE: 14 Nov 1983 1607 PST
OPERATION: Private recreation
PLACE: near Wood Lake BC 50/04N 120/22W
LOCALE: Grass-covered mountain 2400' ASL
WEATHER: Wind calm vis 12 cloud 3500' SCT with rain
PILOT: Commercial
TOTAL HOURS: 1256 ALL TYPES 26 ON TYPE
LAST 90 DAYS: 30 ALL TYPES 26 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 serious; pass: 3 serious.
OCCURRENCE: The aircraft was on an IFR flight from Abbotsford to Kelowna. Prior to departure, weather forecasts indicated the flight would be in cloud or between layers with light to moderate rime icing. The pilot, whose instrument rating had expired 13 months previously, intended to carry out an instrument approach at Kelowna then continue VFR to Vernon, 10 miles to the north.

The upper level portion of the flight (at 11,000 feet) was uneventful and during the instrument approach at Kelowna, the pilot broke out of cloud at 4,000 feet asl. He cancelled his IFR flight plan, and turned north intending to continue VFR to destination. When power was applied the engine failed to respond so he selected the fuel boost pump on, checked tank selection and pumped the throttle; still nothing happened. During the forced landing that followed, the pilot was compelled to pull up and turn left to avoid a large tree. The aircraft stalled, struck the ground left wing low, and slid 60 feet before coming to a rest in an upright position. The crash occurred 2 minutes after the pilot cancelled IFR.

Examination of the fuel system revealed a clean adequate fuel supply was available to the engine. When tested, the engine performed normally except when the mixture control was moved to the lean range. No other reason could be found for the reported engine malfunction. The pilot leaned out the mixture for cruise at 11,000 feet but could not recall returning it to rich before or during his attempt to restore engine power.

During the rescue, ice (up to 1/2 inch thick and shaped like the wing's leading edge) was found around the wreckage.

The serious facial injuries sustained by the front seat occupants could have been substantially reduced or eliminated had the shoulder harnesses been worn.

BELL 206B C-GDXB
UCLUELET, BRITISH COLUMBIA 46mi NE
14 DECEMBER 1983

REPORT
NUMBER: 83-P30080
LOCAL TIME: 01530 PDT
OPERATION: State
DAMAGE: Destroyed
PILOT LICENCE: Commercial Rotorcraft

PILOT HOURS:	ALL TYPES	ON TYPE
TOTAL	10483	2650
LAST 90 DAYS	98	98

INJURIES:	FATAL	SERIOUS	MINOR/NONE
CREW	1	—	—
PASSENGERS	1	—	—

SUMMARY REPORT: While the pilot was patrolling in a remote logging area, the helicopter's rotor blades struck a cable and the machine fell inverted to the ground.

At the time of the accident light conditions were poor as a result of shadows from the low sun angle. The helicopter was travelling at relatively high speed and the unmarked cable lacked visual cues to alert the pilot. It is likely the pilot did not see the cable prior to impact.

A Class I Notam had been issued when the cable was originally installed. However, it was automatically cancelled on the date the cable was supposed to be removed. A new Notam had not been requested or issued at the time of the accident.

It was not normal practice for pilots at this base to check Notams prior to a flight departure. Had there been a valid Notam it is doubtful the pilot would have been alerted.

Initial notification to the regulatory agency indicated the cable was 500-2000 feet above ground and two miles from a highway. Based on the information, it was decided not to conduct an on-site investigation and no marking advice was provided. The cable was 300-400 feet above ground and within two miles of a main roadway. Although there was no requirement for markings, it is possible an on-site investigation may have resulted in marking the cable as a precautionary measure. It is not known if under the conditions, a properly marked cable would have been visible enough for the pilot to avoid it.

83-P30801

Cessna 185F

C-GJTJ

DATE:	27 Feb 1983 1230 PST			
OPERATION:	Private business			
PLACE:	Comox Harbour BC 49/40N 124/55W			
LOCALE:	Mid-air over water			
WEATHER:	Wind N 4 kt vis 20 cloud 25000 broken temp 6°C			
PILOT:	Senior Commercial			
TOTAL HOURS:	22500	ALL TYPES	14000	ON TYPE
LAST 90 DAYS:	7	ALL TYPES	7	ON TYPE
DAMAGE:	Minor			
CASUALTIES:	Crew: 1 uninj; pass: 1 uninj.			
OCCURRENCE:	Several aircraft were circling a fishing fleet at about 400 to 500 feet above water. The lead aircraft was a float-equipped Beaver configured for slow flight. While crossing behind, a Cessna 185 hit the Beaver's ventral fin and empennage with its propeller.			

The Cessna had a damaged propeller, but landed safely at Comox. The Beaver landed safely on the water; substantial portions of the port stabilizer and elevator were severed, as were the down elevator and trim cables.

The Cessna pilot did not see the Beaver in time to avoid a collision. Although the Beaver pilot had seen the Cessna earlier, he didn't see the Cessna again until after the collision.

83-P30802

DeHavilland DHC-2

C-FAXI

DATE: 27 Feb 1983 1230 PST
OPERATION: Charter
PLACE: Comox Harbour BC 49/40N 124/55W
LOCALE: Mid-air over water
WEATHER: Wind N 4 kt vis 20 cloud 25000 broken temp 6°C
PILOT: Senior Commercial
TOTAL HOURS: 9667 ALL TYPES 2000 ON TYPE
LAST 90 DAYS: 14 ALL TYPES 7 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj; pass: 3 uninj.
OCCURRENCE: Several aircraft were circling a fishing fleet at about 400 to 500 feet above water. The lead aircraft was a float-equipped Beaver configured for slow flight. While crossing behind, a Cessna 185 hit the Beaver's ventral fin and empennage with its propeller.

The Cessna had a damaged propeller, but landed safely at Comox. The Beaver landed safely on the water; substantial portions of the port stabilizer and elevator were severed, as were the down elevator and trim cables.

The Cessna pilot did not see the Beaver in time to avoid a collision. Although the Beaver pilot had seen the Cessna earlier, he didn't see the Cessna again until after the collision.

83-P30903

Cessna 180

N9403C

DATE: 10 Jun 1983 1545 PDT
OPERATION: Private recreation
PLACE: 5 miles N of Prince George BC 54/00N 122/45W
LOCALE: Clearing traversed by ravine
WEATHER: Wind SSE 8 kt vis 30 cloud 5000' scattered
PILOT: Commercial
TOTAL HOURS: 1000 ALL TYPES 200 ON TYPE
LAST 90 DAYS: 50 ALL TYPES 50 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj; pass: 2 uninj.
OCCURRENCE: The pilot reported that he filled the aircraft tanks prior to departure for Prince George, and based on his experience, thought he had 4 1/2 to 5 hours endurance. Enroute, he encountered icing, but continued without incident until within about 15 miles of destination, when the engine failed due to fuel exhaustion.

The pilot reported his problem to Prince George Tower, got a wind check, and picked a clearing. Just before touchdown, he spotted a ravine across his path, so he stretched the glide. The aircraft cleared the ravine but stalled and landed heavily from a height of about 15 feet, damaging the main gear and propeller.

The pilot felt that icing of fuel vents had resulted in fuel being siphoned from the tank caps. This could not be confirmed as an investigation was not conducted at the scene.

83-P30904

Piper PA-12

N7599H

DATE: 6 Aug 1983 1906 PDT
OPERATION: Private recreation
PLACE: Williams Lake Arpt BC 52/11N 122/03W
LOCALE: Paved runway 7000' by 200' 3085' asl
WEATHER: Wind calm vis 15+ sky clear
PILOT: Commercial licence
TOTAL HOURS: 1740 ALL TYPES 10 ON TYPE
LAST 90 DAYS: 29 ALL TYPES 7 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj; pass: 1 uninj.
OCCURRENCE: Although the pilot had substantial flying experience on a variety of aircraft, his familiarity with "taildraggers" was limited. He had undergone conversion training only a few days earlier.

On roll-out, directional control was lost and a ground loop resulted. The port wing, undercarriage and prop were damaged.

83-P30906

Beech 200

N24BL

DATE: 16 Aug 1983 1330 PDT
OPERATION: International Charter
PLACE: Tetachuck Lake BC 53/16N 126/04W
LOCALE: Dirt strip 3000' by 40' 2900' asl
WEATHER: Wind calm vis 15+ cloud 4000' scattered
PILOT: Airline Transport
TOTAL HOURS: 6200 ALL TYPES 1700 ON TYPE
LAST 90 DAYS: 75 ALL TYPES 65 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj; pass: 7 uninj.
OCCURRENCE: The pilot was transporting his passengers to a fishing camp. On arrival, he circled overhead and contacted the pilot of a departing single engine aircraft who advised him that the runway condition was good and the wind was calm. He made a short field approach to runway 03 and touched down about 900 ft along the strip to the left of centre. After rolling 300 to 500 ft, the aircraft drifted left, the left outer wing panel was torn off by a dirt bank, and the left main wheels were torn off. The aircraft came to rest with the left wing in brush beside the runway. The passengers were evacuated safely.

The dirt and gravel strip is only 40 ft wide, with weeds, brush and rocks outside a relatively clear 20 ft centre area. There is a shallow ditch and small ridges cut down at the edges, leaving banks, some several feet high. The runway markers are sections of split logs. The aircraft's main wheels are 18 ft apart, leaving only 11 ft on each side. Another company pilot landed the previous day in a Beech 200, but told the accident pilot it was a marginal strip that he would be reluctant to use again. The accident pilot's aircraft had larger tires, so he felt it was more suitable. Even so, a successful landing required a touchdown precisely on the centreline, and no lateral deviation on roll-out; there was no margin for error. The pilot had used similar strips while flying for the military, but had no such recent experience. Weather was not a factor, nor was there any pre-existing aircraft deficiency.

83-P34025

Boeing 767-275

C-GPWA

DATE: 28 Jun 1983 0814 MDT
OPERATION: Scheduled Domestic
PLACE: Calgary Int'l Arpt ALT 51/07N 114/01W
LOCALE: Not significant
WEATHER: Not significant
PILOT: Airline Transport
TOTAL HOURS: Unknown ALL TYPES Unknown ON TYPE
LAST 90 DAYS: Unknown ALL TYPES Unknown ON TYPE
DAMAGE: None
CASUALTIES: Crew: 9 uninj; pass: 64 uninj.
OCCURRENCE: Shortly after take-off the main landing gear assembly failed and the number one main gear wheel assembly fell from the aircraft. The pilot continued the flight and landed at destination.

The primary failure was with the number one landing gear outboard wheel bearing. This resulted from inadequate lubrication when the grease was contaminated with corrosive inhibitor from the inside of the axle shaft.

It is possible that inadequate torquing of the wheel retaining nut may also have been a factor.

83-P35001

Quicksilver MX2

C-IANW

DATE: 3 Apr 1983 1730 PDT
OPERATION: Private business
PLACE: Duncan Airpark BC 48/46N 123/38W
LOCALE: Grass strip
WEATHER: Wind calm vis 15+ sky clear
PILOT: Commercial
TOTAL HOURS: 1800 ALL TYPES 500 ON TYPE
LAST 90 DAYS: 70 ALL TYPES 60 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 2 uninj.
OCCURRENCE: On take-off, the bolt holding the control column to the frame failed. With complete loss of control, the aircraft ran off the runway and went over an embankment. The bolt was sent to the aircraft manufacturer and they reported that it had failed due to fatigue. They were not able to provide any information as to the origin of the fatigue. As a result of this and other similar failures, the diameter of the bolt has been increased by one size. There have been no known failures with the larger bolt.

83-P35002

Quicksilver MX

C-IBEA

DATE: 12 May 1983 1310 PDT
OPERATION: Private recreation
PLACE: 2 mi NW of Cloverdale BC 49/07N 122/53W
LOCALE: Flat cultivated area
WEATHER: Wind W 8 kt vis 15+ sky clear temp 20°C
PILOT: Student
TOTAL HOURS: 6 ALL TYPES 6 ON TYPE
LAST 90 DAYS: 6 ALL TYPES 6 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj.
OCCURRENCE: The throttle was closed in order to descend. When power was called for, the engine stopped. The pilot managed to start the engine again but did not open the throttle. As he was rapidly running out of altitude he selected a field and landed down wind, which caused him to crash into a drainage ditch at the far end.

83-P35003

Lazair Ultralight

C-IDEA

DATE: 18 May 1983 1540 PDT
OPERATION: Private recreation
PLACE: North Pender Island BC 48/47N 123/17W
LOCALE: Tree-covered hills
WEATHER: Wind NE 5 kt vis 15+ sky clear
PILOT: Unlicensed
TOTAL HOURS: 20 ALL TYPES 18 ON TYPE
LAST 90 DAYS: 18 ALL TYPES 18 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj.
OCCURRENCE: After a low pass over the strip towards rising terrain and between two walls of trees, the pilot was not able to outclimb the trees and terrain. The aircraft mushed into the tops of some trees and crashed down through the branches.

83-P35007

Quicksilver MX (Ultralight)

C-IAAM

DATE: 26 Jun 1983 1130 PDT
OPERATION: Private business
PLACE: Perception West Strip BC 48/44N 123/37W
LOCALE: Grass and gravel strip 1500' long 200' ASL
WEATHER: Wind calm vis 15+ sky clear temp 22°C
PILOT: Unlicensed
TOTAL HOURS: 7 ALL TYPES 1 ON TYPE
LAST 90 DAYS: 7 ALL TYPES 1 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj.
OCCURRENCE: The student pilot was on his second solo flight after six hours dual with an instructor. At about 40 feet agl just after take-off, the engine failed. The pilot lacked sufficient experience to recover from the nose-high attitude and the aircraft stalled and crashed. The cause of the engine failure was not determined. The engine started and ran well after the accident.

83-P35008

Quicksilver MXII (Ultralight)

C-IBKC

DATE: 3 Jul 1983 1600 PDT
OPERATION: Private training
PLACE: Sproat Lake BC 49/17N 124/57W
LOCALE: Lake water area
WEATHER: Wind 13G17 vis 15+ cloud bkn temp 16°C
PILOT: Commercial
TOTAL HOURS: 700 ALL TYPES 35 ON TYPE
LAST 90 DAYS: 80 ALL TYPES 35 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 2 uninj.
OCCURRENCE: The weather was poor with gusting winds and rain so the morning flight had been cancelled. When conditions improved somewhat, but remained overcast, the instructor and his student took off on a training flight.

Suddenly the wind picked up and the instructor decided to land in a protected bay to avoid choppy water. His student flew most of the turbulent approach and, near the landing, the instructor took full control. Following the flare, a gust of wind lifted the left wing and the float tip dug into the water. The aircraft swerved and overturned. Luckily, both pilots evacuated without difficulty.

83-P35009

Eagle Ultralight

C-IBLU

DATE: 6 Jul 1983 1555 PDT
OPERATION: Private training
PLACE: Kelowna BC 49/58N 119/23W
LOCALE: Grass runway 550' by 35' 1100' asl
WEATHER: Wind S 4 kt vis 15 cloud 5000' SCT temp 15°C
PILOT: Commercial ultra-light and glider licence
TOTAL HOURS: 180 ALL TYPES 30 ON TYPE
LAST 90 DAYS: 50 ALL TYPES 30 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 2 uninj.
OCCURRENCE: The wind (described by the pilot as calm) turned into a tailwind during the take-off roll. At about 300 feet down the runway, the aircraft would not fly so he aborted the take-off by throttling back. The aircraft struck a ridge of earth and vegetation at the end of the strip and rolled over.

The Koch Chart (VFR Supplement C52) shows that given the high temperature and altitude conditions of the day, 20 per cent should have been added to the take-off distance. The pilot apparently did not take this into consideration and aborted the take-off without sufficient runway remaining. In addition, the change in wind direction due to thunderstorms nearby likely contributed to the increased take-off roll.

83-P35010

Lazair III Ultralight

C-IMCY

DATE: 26 Jul 1983 0930 PDT
OPERATION: Private recreation
PLACE: 3 mi N of Delta Airpark BC 49/07N 122/55W
LOCALE: Flat cultivated area 2000' by 2000' 3' asl
WEATHER: Wind calm vis 10 cloud 4000' OVC temp 16°C
PILOT: Commercial licence
TOTAL HOURS: 450 ALL TYPES 15 ON TYPE
LAST 90 DAYS: 15 ALL TYPES 15 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj.
OCCURRENCE: While setting up the aircraft for a normal landing, the pilot reduced the throttle and started a turn and descent from approximately 100 feet. The pilot became aware he was in a stalled condition only after he started a rapid mushing descent. He attempted recovery by adding power. The aircraft struck the ground in a right wing, nose-low attitude.

It appears the pilot did not refer to the airspeed indicator prior to the occurrence.

83-P35011

Skyseeker MKIII (Ultralight)

C-IFAI

DATE: 26 Jul 1983 0915 PDT
OPERATION: Private business
PLACE: Naramata BC 49/35N 119/33W
LOCALE: Tree-covered hills
WEATHER: Wind calm vis 15+ sky clear temp 12°C
PILOT: Private
TOTAL HOURS: 75 ALL TYPES 2 ON TYPE
LAST 90 DAYS: unknown ALL TYPES 2 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj.

OCCURRENCE: Apparently, the pilot could not outclimb rising terrain while flying the ultralight aircraft. He initiated a 180 degree turn away from the slope and contacted a tree. The aircraft stalled and fell 8 feet to the ground. The pilot stated he did not encounter expected updrafts.

The pilot's licence was invalid as his medical had expired in 1980.

83-P35012

American Eagle (ultralight)

C-IBLU

DATE: 27 Aug 1983 1155 PDT
OPERATION: Private training
PLACE: Okanagan Lake BC 49/50N 119/30W
LOCALE: Lake water area
WEATHER: Wind calm vis 20 cloud 14000 broken temp 17°C
PILOT: Commercial ultra-light
TOTAL HOURS: 181 ALL TYPES 55 ON TYPE
LAST 90 DAYS: 57 ALL TYPES 50 ON TYPE
DAMAGE: Destroyed
CASUALTIES: Crew: 2 fatal
OCCURRENCE: The ultralight aircraft flying at 300 to 500 feet agl was observed to bank steeply to the right and then descend in a steep nose-down attitude rolling about its longitudinal axis. It struck the lake surface and sank.

As a result of a recent accident in Missouri, the manufacturer issued a safety bulletin requiring modifications to correct some unspecified negative flying characteristics. The bulletin was issued two days after this accident, and, although similar in many respects to the Missouri accident, it could not be determined if the loss of control was related. Examination of the wreckage failed to reveal any other cause for the aircraft's departure from controlled flight.

Both pilots died as a result of drowning. Neither occupant was wearing a flotation device nor was the aircraft fitted with a parachute recovery system.

83-P35014

Quicksilver MX2 Ultralight

C-ICGO

DATE: 12 Oct 1983 1700 PDT
OPERATION: Private training
PLACE: Duncan Airpark BC 48/45N 123/43W
LOCALE: Tree-covered hills 350' asl
WEATHER: Wind ESE 5 kt vis 15+ cloud scattered
PILOT: Student Ultralight
TOTAL HOURS: 5 ALL TYPES 5 ON TYPE
LAST 90 DAYS: 5 ALL TYPES 5 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj.
OCCURRENCE: The aircraft descended into trees during a turn to base leg. The pilot had just completed a dual flight in the ultralight aircraft, and this was his second solo effort. His instructor had judged him capable of solo flight; however, the pilot flew the downwind leg so low that a slight altitude loss caused the aircraft to strike the tree tops.

DATE: 15 Jan 1984 1513 PST
OPERATION: Private recreation
PLACE: 5 Mi SE Kelowna Arpt BC 49/58N 119/23W
LOCALE: Snow-covered Field
WEATHER: Wind S 1 kt vis 15 cloud 2000' Sct temp -5°C
PILOT: Private
TOTAL HOURS: 180 ALL TYPES 70 ON TYPE
LAST 90 DAYS: 18 ALL TYPES 18 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj; pass: 3 uninj.
OCCURRENCE: The aircraft had flown for just over four hours since its last refuelling. Five miles from the destination aerodrome the engine failed and the pilot carried out a forced landing in a snow-covered field.

Earlier in the day the pilot had flown two flights totalling about three hours. Midway through the third flight, 20 miles from an enroute aerodrome, the pilot and a passenger discussed the fuel available and decided that based on time flown and travel time remaining, they should have enough fuel to reach their destination.

The engine failed because of fuel exhaustion. Post flight calculations (based on flight altitudes and assuming the aircraft was fully fuelled) indicated that the third flight was started with about 12 gallons of fuel. This should have been enough for the planned flight but would not have provided the 45 minute fuel reserve required.

PIPER PA-24, C-FUUF
CRANBROOK, BRITISH COLUMBIA 13 MI SE
27 FEBRUARY 1984

REPORT

NUMBER: 84-P40005
LOCAL TIME: 1520 PST
OPERATION: Private
 Recreation
DAMAGE: Substantial
PILOT LICENCE: Private

PILOT HOURS:	ALL TYPES	ON TYPE
TOTAL	336	15
LAST 90 DAYS	6	Unknown

INJURIES:	FATAL	SERIOUS	MINOR/NONE
CREW	—	—	1
PASSENGERS	—	—	1

SUMMARY REPORT: The aircraft was cruising in level flight at 9000 feet ASL when the engine stopped. Attempts to restart the engine were unsuccessful and a forced landing was carried out on rolling pasture land. The aircraft was damaged after landing, when it struck a barbed wire fence and an irrigation pipe.

When the engine failed, only corrective action for carburettor icing was carried out. Fuel source, mixture and switches were not checked.

Investigation revealed that the left fuel tank had been selected to supply fuel to the engine, but was empty. The right tank contained sufficient fuel for the intended flight. The left tank had been selected as an airtest item on the previous flight which followed an inspection. The intention was to switch the tank selector to the right tank prior to take-off, but this was not done. The engine stopped because of fuel starvation.

84-P40006

Cessna 182

C-FUMP

DATE: 3 Mar 1984 1430 EST
OPERATION: Private recreation
PLACE: Canoe Creek 51/27N 122/10W
LOCALE: Farm field
WEATHER: Wind calm vis unlimited sky clear temp 4°C
PILOT: Private
TOTAL HOURS: 241 ALL TYPES 92 ON TYPE
LAST 90 DAYS: Unknown ALL TYPES Unknown ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj; pass: 1 uninj.
OCCURRENCE: The aircraft over-ran the planned take off area into a rough sloping field. It became airborne with low air speed and insufficient altitude to clear a fence. The aircraft struck the top of the fence and came to rest in a stand of small trees.

84-P40010

Pitts S2A

C-FAMS

DATE: 4 Apr 1984 1649 PST
OPERATION: Private testing
PLACE: 1 mi NE of Langley Arpt BC 49/06N 122/36W
LOCALE: Pasture surrounded by trees
WEATHER: Wind SW 7 kt vis 15+ cloud scattered
PILOT: Airline Transport
TOTAL HOURS: 8500 ALL TYPES 400 ON TYPE
LAST 90 DAYS: 210 ALL TYPES 3 ON TYPE
DAMAGE: Destroyed
CASUALTIES: Crew: 1 serious
OCCURRENCE: Shortly after take-off, the pilot detected fuel on the floor of the cockpit. While returning to the airport, the fuel ignited and he was forced to land in a field. The pilot was injured and the aircraft destroyed. The origin of the fuel leak could not be determined.

84-P40020

Piper PA-22

C-FWKZ

DATE: 2 Jun 1984 1130 PDT
OPERATION: Private recreation
PLACE: Lillooet Arpt BC 50/40N 121/53W
LOCALE: Mountainous tree-covered ara 1320' asl
WEATHER: Wind SW calm gusitng to 015 kt vis 15+ temp 12°C
PILOT: Private
TOTAL HOURS: 59 ALL TYPES 23 ON TYPE
LAST 90 DAYS: 33 ALL TYPES 23 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj; pass: 3 uninj.
OCCURRENCE: The low-time pilot took off with a heavy load in a gusty crosswind. The aircraft stalled just after lift-off and settled back to the ground beside the runway.

Just before takeoff, he noticed the windsocks at the runway ends were indicating winds coming from opposite directions. He did not understand the significance of this and in addition, the wind was gusting from calm to 15 knots. Another pilot reported a wind shear on final that morning.

81-Q10044

Piper PA18-150

C-GRCM

DATE: 29 May 1981, 1020 EST
OPERATION: Private - recreation
PLACE: Lac du Raccourci, Que. 20/17N 70/27W
LOCALE: Lake water area
WEATHER: Wind N 10 G 15 kt, vis 10, cloud 3000 obscured
PILOT: Commercial
TOTAL HOURS: 420 ALL TYPES 250 ON TYPE
LAST 90 DAYS: 6 ALL TYPES 6 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 minor; pass: 1 fatal
OCCURRENCE: The pilot and passenger landed at several locations on the lake to pick a site for a fishing camp. On the fifth landing they hit a log and the aircraft nosed over on its back. The two managed to climb out on the floats of the overturned aircraft.

As the water was icy cold and rough, and the aircraft some 300' from shore, there was little chance of swimming to safety. Some 27 hours after the accident another aircraft picked up the pilot, but the passenger had died of exposure about 10 hours before the rescue.

81-Q10045

Beech B-19

C-FEQH

DATE: 31 May 1981 0955 EDT
OPERATION: Specialty-training
PLACE: 5 mi SW of Rimouski Arpt, Que. 48/26N 68/35W
LOCALE: Flat tree-bordered field 40' asl
WEATHER: Wind calm, vis 35, cloud 3000' overcast, temp 7°C, dewpoint 4°C
PILOT: Private
TOTAL HOURS: 236 ALL TYPES 199 ON TYPE
LAST 90 DAYS: 90 ALL TYPES 53 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 minor
OCCURRENCE: About 3 minutes after take-off and climbing through 1000 feet, the pilot finally noticed the reduced rate of climb resulting from decreasing RPM. He manipulated the throttle which resulted in a momentary RPM increase; this was followed by a further decrease to 1200 RPM before stopping completely. During the forced landing, he overshot the intended landing area and came to a stop in a clump of trees. Although some vital actions were performed, carb heat was not used. The small temperature dewpoint spread was conducive to carb icing.

81-Q10052

Cessna 404

C-GZJQ

DATE: 17 Jun 1981, 1217 EDT
OPERATION: Commercial - non revenue
PLACE: Rimouski Arpt Que 48/29N 68/30W
LOCALE: Rolling gravel road
WEATHER: Wind W 12 kt vis 10 cloud 4500 broken temp 16°C
PILOT: Airline Transport
TOTAL HOURS: 3200 ALL TYPES 1000 ON TYPE
LAST 90 DAYS: 150 ALL TYPES 150 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 2 uninj.
OCCURRENCE: Approaching the first enroute stop, the right engine lost power. The crew feathered the propeller and made a single engine landing. Ground checks on the engine disclosed no serious discrepancy, and after a short test flight, everything appeared normal. The captain, however, decided to return to the operator's main base.

Following take-off, the right engine lost power again and the right propeller was feathered. At the same time, the captain noticed that the manifold pressure for the left engine was falling. Unable to maintain altitude, a forced landing was made on a road bordering the airport. The aircraft landed wheels-up because the captain had delayed the gear down selection and the gear had not fully extended.

When tested, both engines performed normally. The fuel was checked and found to be free of contaminants. The reason for the power loss on both engines could not be determined.

81-Q10059

Aeronca 11AC

C-FRDP

DATE: 5 July 1981, 0950 EDT
OPERATION: Private recreation
PLACE: near Goth Lake, Que. 48/17N 70/41W
LOCALE: Tree-bordered lake 540' ASL
WEATHER: Wind WSW 2 kt, vis 8, cloud 2500' sct, temp 22°C
PILOT: Private
TOTAL HOURS: 342 ALL 42 ON TYPE
LAST 90 DAYS: 42 ALL 42 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 minor; pass: 1 serious.
OCCURRENCE: The pilot was practising glassy water landings when he reportedly experienced a loss of rudder control while turning to final approach. He stated that the left rudder pedal would not respond to his control inputs but remained fully right. According to the pilot, he experienced difficulty turning left; as the aircraft descended towards some trees, he increased power and attempted to raise the nose to avoid striking them. The aircraft entered a nose-high attitude followed by an incipient spin. The floatplane struck the ground in a stalled condition.

A broken cable, reportedly from the left rudder control system, was recovered and forwarded for laboratory analysis. Many wires had been worn through to the failure point, and wear indicated that the cable had been weakened to the point that separation could have occurred under normal service loads.

The wider of two cable pulleys was heavily gouged in two places, while the narrower pulley showed faint signs of cable rub. It is apparent the aircraft had operated for some time with the cable mis-routed over the pulleys. It could not be determined if the rudder cable failure occurred in the air or on impact.

Aircraft documents revealed that the pilot had conducted his own inspection. He had either not noticed or neglected to fix the mis-routed rudder cable.

The flight path was determined with the aid of an audio cassette made at the time of the accident. It seems apparent the pilot was attempting to land on the surface of the lake, when, for some unknown reason, he added two separate bursts of power. This action was followed by the application of full power, then the crash. The pilot states that these two bursts of power were added to see if there was any danger of spinning.

The aircraft then entered a nose-high attitude and control was lost. The pilot had received no specific training on his aircraft's slow speed performance, and had no stall training.

81-Q10097

Cessna 172N

C-GVNV

DATE: 6 September 1981, 1715 EDT
OPERATION: Private - recreation
PLACE: Mont Laurier Arpt, Que. 46/34N 75/35W
LOCALE: Sand runway 3075' by 100', 825' asl
WEATHER: Wind light, vis 15+, cloud 14,000 scattered, temp 22°C
PILOT: Private
TOTAL HOURS: 113 ALL TYPES 89 ON TYPE
LAST 90 DAYS: 2 ALL TYPES 2 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj; pass: 2 minor, 1 uninj.
OCCURRENCE: Intending to carry-out a local sightseeing trip with three passengers, the pilot started his take-off roll on a runway a little over 3000 ft in length. Though the take-off roll should have been approximately 740 ft, the aircraft had travelled some 2750 ft before the pilot decided to abort. The aircraft rolled into the overrun and went over onto its back some 350 ft beyond the end of the runway.

81-Q10101

Cessna 150M

C-GIWW

DATE: 15 September 1981, 1745 EDT
OPERATION: Specialty training
PLACE: Lake Champlain, Que. 45/02N 73/05W
LOCALE: Lake water area
WEATHER: Wind NW 5 kt, vis 15+, cloud 4000' sct, temp 18°C
PILOT: Private
TOTAL HOURS: 100 ALL 100 ON TYPE
LAST 90 DAYS: unknown ALL unknown ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 fatal; pass: 1 uninj.
OCCURRENCE: The pilot and one passenger took off on a local VFR flight. After departure, they flew south towards a large lake. While over the lake, for unknown reasons, the aircraft plunged out of control into the lake. The impact damages to the aircraft were consistent with those sustained to aircraft striking water while in a spin. The two occupants survived the initial impact and escaped the sinking aircraft, but the pilot later drowned.

81-Q10102

Bell 206B

C-FZSN

DATE: 16 September 1981, 1705 EDT
OPERATION: Specialty inspection
PLACE: 20 miles ESE of Maniwaki, Que. 46/10N 75/33W
LOCALE: Lake water area
WEATHER: Wind NNE 6 kt, vis 25, cloud 3800' bkn, temp 15°C
PILOT: Commercial rotorcraft
TOTAL HOURS: 2050 ALL 900 ON TYPE
LAST 90 DAYS: 260 ALL 260 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj; pass: 1 minor, 1 uninj.
OCCURRENCE: The pilot was keeping the helicopter close to the shore with 80% power while his two passengers took water samples and set a fishnet. As the net was being pulled towards the shore, it snagged on the bottom, and the passenger on shore tried to dislodge it by tugging sharply on the rope. As the net came free, the rope flung upwards into the main rotor and the rope began winding around the main mast. Suddenly the net, with a two pound metal weight at the end, began flailing and striking the airframe in several places. The passenger suffered minor injuries as the rope was snapped from his hand.

81-Q10105

de Havilland DHC-2

C-FEYT

DATE: 16 September 1981, 1500 EDT
OPERATION: Specialty - inspection
PLACE: near Poste de la Baleine, Que. 56/10N 74/50W
LOCALE: Tree, rock and grass-covered hills
WEATHER: Wind NW 7 kt, vis 0 to 1 mi, cloud 6000' obscured in fog, temp 7°C
PILOT: Commercial
TOTAL HOURS: 4511 ALL TYPES 2182 ON TYPE
LAST 90 DAYS: 187 ALL TYPES 187 ON TYPE
DAMAGE: Destroyed
CASUALTIES: Crew: 1 fatal; pass: 1 fatal
OCCURRENCE: The pilot and a forestry engineer were on a forest fire survey flight; the aircraft struck trees along rising terrain located between two relatively high-cliffed hills.

On-scene investigation revealed that the aircraft initially contacted a tree with the right float and the ground with the left wing tip, indicating a steep bank to the left. The aircraft then struck the surface, cartwheeled for about 150 feet, and burst into flames. A detailed examination of the wreckage was not possible due to the severity of the damage. However, a piece of a propeller blade was examined, and it was determined that the engine was turning at high RPM at time of impact. (LP 391/82)

Weather information for the area, indicated IFR conditions with cloud ceilings of 600 feet or less, and visibilities of 0 to 1 mile in fog.

The ELT failed to function because of a depleted battery pack which was two years past its expiry date.

81-Q10109

Republic RC-3

C-FFSC

DATE: 13 September 1981 1530 EDT
OPERATION: Private - recreation
PLACE: Riviere Mistassini Que 48/47N 72/22W
LOCALE: Flat sand bar on river
WEATHER: Wind SW 13 kt vis 15+ sky clear
PILOT: Private
TOTAL HOURS: 400 ALL TYPES 75 ON TYPE
LAST 90 DAYS: 8 ALL TYPES 8 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 2 uninj; pass: 1 uninj.
OCCURRENCE: After two hours of local supervised flying, the pilot returned to the airport. When he lowered the gear, he lost hydraulic pressure and was unable to lock the gear down. The supervisory pilot took control and selected a partially submerged sand bar for an emergency landing. After landing, the right float dug in, causing damage to the right wing.

After the supervisory pilot left the area on other business, the pilot made minor repairs and flew the aircraft from the sand bar back to the airport.

81-Q10111

Aeronca 7AC

CF-YXW

DATE: 25 Oct 1981 1500 EDT
OPERATION: Private recreation
PLACE: Lachenaie Que 45/44N 73/29W
LOCALE: Flat grass-covered strip 25' wide
WEATHER: Wind W 15 kt vis 25 cloud 6000' broken temp 4°C
PILOT: Private
TOTAL HOURS: 110 ALL TYPES 110 ON TYPE
LAST 90 DAYS: 15 ALL TYPES 15 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj; Other: 1 uninj.
OCCURRENCE: As the pilot touched down, a gust of wind swung the aircraft to the left. Before he had time to apply power to overshoot, the left wheel struck a mound of earth and the aircraft came to rest in a small ditch.

81-Q10113

Beech 76

C-GBKI

DATE: 27 October 1981 2000 EST
OPERATION: Charter
PLACE: Dorval Arpt Que 45/28N 73/45W
LOCALE: Ramp area on airport
WEATHER: Not significant
PILOT: Airline Transport
TOTAL HOURS: Unknown ALL TYPES Unknown ON TYPE
LAST 90 DAYS: Unknown ALL TYPES Unknown ON TYPE
DAMAGE: None
CASUALTIES: Crew: 1 uninj; Other: 1 serious
OCCURRENCE: Though it was dark and his aircraft was parked in a congested area, the pilot decided to taxi out in order to fly back to his home base. Assisted by his mechanic, he started taxiing between the parked aircraft. An employee with limited experience in line servicing was refuelling another aircraft; he observed the pilot taxiing out and surmised that a collision was highly probable. As he stood in the glare of the landing light to attract the pilot's attention, he got too close, and the left propeller struck his left hand causing serious injury. The pilot observed the close proximity of the lineman, but shut down the engines too late to avoid the accident.

81-Q10115

Cessna 172K

C-GUBY

DATE: 1 Nov 1981 1845 EST
OPERATION: Private recreation
PLACE: Ste Anne de Sorel Que 46/03N 73/04W
LOCALE: Street in a built-up area
WEATHER: Wind calm, vis 3, cloud 2000' overcast
PILOT: Private
TOTAL HOURS: 110 ALL TYPES 110 ON TYPE
LAST 90 DAYS: 2 ALL TYPES 2 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj; pass: 1 uninj.
OCCURRENCE: The pilot departed Alma airport for Trois-Rivieres; there was not enough daylight to last the entire trip. He was not licensed or experienced for night flying.

Before reaching Trois-Rivieres, he became lost and the engine quit from fuel exhaustion. In the dark, he carried out a forced landing onto a street; a parked truck was hit with the starboard wing during the landing roll.

DATE: 23 Nov 1981 1925 EST
OPERATION: Private training
PLACE: Chibougamau Arpt Que 49/49N 74/25W
LOCALE: Gravel runway 2850' by 75' 1318' asl
WEATHER: Wind W 10 kt vis 1 cloud 500' overcast temp -7°C
PILOT: Airline Transport
TOTAL HOURS: 10956 ALL TYPES 791 ON TYPE
LAST 90 DAYS: 180 ALL TYPES 11 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 2 uninj; pass: 2 uninj.
OCCURRENCE: The crew were on a night IFR flight from Montreal to Chibougamau; a pilot under instruction was flying from the left seat.

The weather forecast at the time of issue was suitable for the flight with a note of light to moderate rime ice in cloud. Shortly after take-off, however, the hourly sequences at destination indicated the weather was deteriorating. In addition, the forecast was amended to include freezing drizzle at point of arrival.

Enroute, the crew received updated weather reports which contained the freezing drizzle information and also that the visibility had dropped below ADF circling minima limits. The crew received clearance for the ADF approach with a circling for runway 26. On the descent, alcohol dispersal was used to clear ice from the windscreen and used up until final approach.

On final, the aircraft was lined up to the left of the runway. An abrupt turn to the right was then made to regain the centre line. The pilot who was flying misjudged the altitude, and the right wing tip and right propeller contacted the ground. The right tire also blew on landing. The pilot in command then took over and brought the aircraft to a stop.

There is a caution note in the Pilots Operating Handbook placing a limitation on the use of windscreen alcohol; it states that the system should be discontinued at least 20 seconds before reaching minimum descent altitude in order to evaporate and clear the windscreen.

The airport also lists minimum lighting available for night operations. The situation with reduced forward visibility, alcohol on the windscreen and limited airport lighting, all contributed to the inability of the pilot flying to judge the final approach runway alignment and touchdown. (LP 8/82)

DATE: 28 Nov 1981 1315 EST
OPERATION: Specialty training
PLACE: Ste-Therese Arpt Que 45/42N 73/48W
LOCALE: Paved runway 2400' by 100' 230' asl
WEATHER: Wind NW 12 kt vis 15 cloud 2000' broken temp 0°C
PILOT: Commercial
TOTAL HOURS: 1800 ALL TYPES 1000 ON TYPE
LAST 90 DAYS: 300 ALL TYPES 200 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 2 uninj.
OCCURRENCE: The student pilot and instructor were practising short field landing techniques. The wind was 50 degrees cross-wind from the right. According to the student, he had flown close to the ground, slowed the aircraft, and was using 40 degree flap while holding the nose up. The aircraft suddenly ballooned to about 50 feet, and although the student applied power and lowered the nose, the aircraft dropped rapidly and dragged the left wing on the ground. It then righted itself and ran off the runway. The instructor did not take over control in time to prevent this occurrence.

81-Q10124

Grumman AA-5A

C-GUHD

DATE: 30 Dec 1981 1620 EST
 OPERATION: Private business
 PLACE: Valleyfield Que 45/13N 74/08W
 LOCALE: Snow-covered runway 2600' by 75' 155' asl
 WEATHER: Wind calm vis 8 cloud 2000' broken temp -9°C
 PILOT: Private

TOTAL HOURS:	185	ALL TYPES	90	ON TYPE
LAST 90 DAYS:	32	ALL TYPES	9	ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj.

OCCURRENCE: The pilot wanted to practise a touch-and-go landing. After touchdown, he anticipated that he would raise the flaps, apply power then carry on with the take-off; however, a six inch layer of snow obstructed the aircraft and made it impossible to continue. The pilot had the strip plowed for about 2000 feet then attempted another take-off, this time without his passenger. During the take-off run, the aircraft did not accelerate properly; he decided to abort the run but it was too late - the aircraft overran the strip and into a fence.

The VFR Supplement remarks that this aerodrome has "Limited winter maintenance, check field condition with operator". The pilot had not done this. It is suspected that the strip was not plowed properly before the take-off.

81-Q10901

Piper PA23

N6244Y

DATE: 12 June 1981, 1517 EDT
 OPERATION: Private - recreation
 PLACE: Gracefield, Que. 46/05N 76/50W
 LOCALE: Hilly
 WEATHER: 300 ft overcast, vis 10, light rain, winds calm, temp 18°C
 PILOT: Commercial

TOTAL HOURS:	1450	ALL TYPES	438	ON TYPE
LAST 90 DAYS:	33	ALL TYPES	33	ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 5 uninj.

OCCURRENCE: While in cruise, the pilot noticed that the right fuel gauge was low, then without warning, the right engine stopped. He switched to the left tank and flew for another 10 minutes, then both engines quit. He made a wheels-up landing 17 nm from his destination. After the landing, he checked the right tip-tank and estimated there was 12 gals remaining. He believes that the lines were blocked preventing the transfer of fuel to the main outer tank.

81-Q10903

Cessna 402B

N3819C

DATE: 1 Sep 1981 0956 EDT
 OPERATION: Specific Point
 PLACE: 1 mi SW of Dorval Arpt Que 45/27N 75/47W
 LOCALE: Flat paved roadway 100' asl
 WEATHER: Wind SE 7 kt vis 12 cloud 9000' overcast temp 21°C
 PILOT: Commercial

TOTAL HOURS:	1630	ALL TYPES	200	ON TYPE
LAST 90 DAYS:	166	ALL TYPES	24	ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; Other: (ground) 1 serious

OCCURRENCE: The pilot was alone flying a short freight run to Montreal. On a VFR approach over a densely populated area, just outside the outer marker, he reported experiencing a power loss on the left engine; the aircraft yawed to the right, and although he said he

raised the gear and flaps, he was unable to maintain the approach on one engine. At slightly over one mile from the runway threshold, he reported the emergency to the tower. Seeing he could not reach the runway, he elected to land on a residential street diverging to the right of his flight path.

Just prior to touchdown, the right propeller, wing and gear contacted a wire that spanned two poles. The left tip tank impacted a vehicle travelling in the opposite direction, rupturing the tank, spewing fuel, and seriously injuring the driver. The gear ripped off as the aircraft skidded to a stop on the roadway.

Examination found nothing mechanically wrong to account for the reported power loss –both engines were ground run without difficulty. The aircraft should have been capable of operating on one engine given the weight and the configuration he experienced.

Examination of the aircraft indicates that neither engine was under power at impact, despite throttles and mixtures being advanced fully. Both wing auxiliary fuel tanks were found almost empty, while adequate fuel remained in both main tanks. Judging from the low level, the pilot was drawing fuel from his wing auxiliary tanks while enroute. It appears that he neglected to select main tanks on approach. The first item of the before landing check calls for the selection of the fuel to the main tanks. Apparently this was not done as other fuel pump switches in the same check were also not selected.

The fuel starved engines appear to have stopped almost simultaneously, explaining the yaw he experienced. At some point, following the double engine failure, the main tanks were selected, possibly in an effort to restart the engines. However, the combination of low altitude, low speed and gear and flaps down, left the pilot with no option but to execute a forced landing.

82-Q20054

Cessna 150L

C-GAES

DATE: 25 July 1982 1930 EDT

OPERATION: Other

PLACE: Trois Rivières Arpt Que. 46/21N 72/41W

LOCALE: Paved runway 6000' by 150' 198' ASL

WEATHER: Wind WSW 8 kt vis 15 cloud 3400' OVC temp 23°C

PILOT: Unlicensed

TOTAL HOURS:	unknown	ALL TYPES	unknown	ON TYPE
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LAST 90 DAYS:	unknown	ALL TYPES	unknown	ON TYPE
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DAMAGE: Substantial

CASUALTIES: Crew: 1 minor.

OCCURRENCE: While under the influence of alcohol, the mechanic's helper started doing a run-up on the aircraft, saying he had been directed to check one of the cylinders. Though he did not have a pilot's licence or any flying experience to speak of, he turned onto the runway and did an unauthorized take-off. The club CFI took off, intercepted the aircraft and ordered the would-be pilot to follow him back to the airport.

On arrival at the airport, the unauthorized pilot attempted to land several times. Finally, he touched down and bounced a few times. Through harsh control movements, he caused the nose wheel to fail; the propeller and wings were substantially damaged when the aircraft came to a rest at the side of the runway.

82-Q20058

Cessna 180

CF-FSF

DATE: 15 Aug 1982 1530 EDT
 OPERATION: Private business
 PLACE: Chub Lake Que. 47/09N 79/57W
 LOCALE: Lake water area
 WEATHER: Wind S 8 kt sky clear with haze temp 23°C
 PILOT: Private

TOTAL HOURS:	1700	ALL TYPES	900	ON TYPE
LAST 90 DAYS:	60	ALL TYPES	60	ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 1 uninj.

OCCURRENCE: While taking off from a lake, the aircraft struck submerged rocks damaging the front compartments of the right float. The pilot was familiar with the lake and should have known the location of submerged rocks and the areas suitable for take-off.

82-Q20060

Cessna 150L

CF-JFF

DATE: 21 Aug 1982 1415 EDT
 OPERATION: Private training
 PLACE: 2 mi E of Ste-Julie Que 45/36N 73/20W
 LOCALE: Flat grass-covered area
 WEATHER: Wind NNW 4 kt vis 15+ cloud 4000' BKN temp 15°C
 PILOT: Private

TOTAL HOURS:	460	ALL TYPES	280	ON TYPE
LAST 90 DAYS:	35	ALL TYPES	13	ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj.

OCCURRENCE: The engine hesitated when the pilot re-applied power following a descent from 3000 to 1800 feet. After he applied carburettor heat and full power, the engine ran briefly then quit. The pilot declared an emergency and made a forced landing into a farmer's field.

The aircraft struck a ditch, went over on its nose then onto its back: the nose gear, engine mount and tail were substantially damaged. Subsequent inspection of the engine suggested carb icing caused the power loss.

82-Q20061

Cessna 170B

C-FRIK

DATE: 25 Aug 1982 1755 EDT
 OPERATION: Commercial non-revenue
 PLACE: Lac Nouveau Que 53/56N 69/03W
 LOCALE: Glassy lake water area
 WEATHER: Wind calm
 PILOT: Private

TOTAL HOURS:	200	ALL TYPES	150	ON TYPE
LAST 90 DAYS:	unknown	ALL TYPES	unknown	ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 1 uninj.

OCCURRENCE: To avoid rocks along the shoreline, the pilot landed on glassy water in the center of the lake. Unfortunately, he did not do a proper glassy water approach and struck the water in a nose-down left wing low attitude. He immediately applied harsh back pressure on the control column which resulted in the right wing tip striking the water. The left float fuselage and right wing were damaged during the landing.

82-Q20065

Cessna 152

C-GYBO

DATE: 3 Sep 1982 1900 EDT
OPERATION: Specialty training
PLACE: Alma Arpt Que 48/31N 71/39W
LOCALE: Gravel and asphalt runway 4300' by 150' 445' asl
WEATHER: Wind calm vis 15+ sky clear
PILOT: Commercial
TOTAL HOURS: 650 ALL TYPES 300 ON TYPE
LAST 90 DAYS: 50 ALL TYPES 30 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj.
OCCURRENCE: On return from a local pleasure flight, the pilot landed well down the runway with a light tail wind. Deciding to go around for another circuit, he applied power and pulled the aircraft off at low speed. The aircraft climbed to about 20 feet, then settled back to the ground and overturned some 300 feet beyond the runway.

82-Q20073

Piper PA23-250

C-GUKC

DATE: 3 Oct 1982 0630 EDT
OPERATION: Charter
PLACE: Chisasibi Arpt Que. 53/48N 78/55W
LOCALE: Gravel runway 1800' by 75' 40' asl
WEATHER: Wind SSW 15G20 vis 5 cloud 1000' ovc temp 7°C
PILOT: Senior Commercial licence
TOTAL HOURS: 1350 ALL TYPES 700 ON TYPE
LAST 90 DAYS: 149 ALL TYPES 12 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj
OCCURRENCE: After only a few hours sleep, the pilot departed home base early to carry out a medical evacuation. Arriving over the airport where he was to pick up two passengers, he found the short gravel strip still in darkness. In addition it was raining and there was a crosswind coming from the left at 15 to 20 kts. Lighting consisted of six flare pots, three on the either side of the strip mounted on gas drums. As he rounded out he found it very hard to judge height above ground in the darkness and rain. Finding that he would be landing too far down the strip, he overshot and came around for another landing. He had trouble keeping the aircraft aligned and touched down a little past the midway point. He was unable to stop in the distance remaining and the aircraft dug into the soft ground damaging the nose gear, right main gear and both propellers.

82-Q20075

Hughes 500D

C-GLHK

DATE: 4 Oct 1982 0907 EDT
OPERATION: Charter
PLACE: LG-4 Base Camp Que 53/53N 73/22W
LOCALE: Helipad area 100' by 50' 1300' asl
WEATHER: Wind NNW 12 kt vis 10 cloud 2500' bkn temp 1°C
PILOT: Commercial Rotocraft
TOTAL HOURS: 1350 ALL TYPES 510 ON TYPE
LAST 90 DAYS: 82 ALL TYPES 29 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj; pass: 3 uninj.
OCCURRENCE: The engine lost power as the helicopter accelerated on take-off from a private pad. The pilot manoeuvred left to avoid a telephone post and wires, then lowered the collective to carry out an autorotation. However, the helicopter landed heavily on rough rocky terrain, damaging the skid gear, cargo containers, and the tail boom and shaft. Subsequent inspection revealed that the PY line to the Fuel Control Unit had not been properly tightened when an engine gear boom had been re-installed 45 minutes flight time before the accident. The line had loosened during engine operation and caused a deceleration to flight idle.

82-Q20079

Stinson 108-3

C-FHKU

DATE: 24 Oct 1982 1615 EDT
OPERATION: Private recreation
PLACE: Lac Huard Que 48/04N 71/53W
LOCALE: Lake water area 16000' long
WEATHER: Wind NW 9 kt vis 15+ sky clear temp 10°C
PILOT: Private
TOTAL HOURS: 3100 ALL TYPES 40 ON TYPE
LAST 90 DAYS: 75 ALL TYPES 70 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 minor; pass: 1 uninj.
OCCURRENCE: Shortly after taking off from a lake, the engine lost half power at about 200 feet. The pilot had not used the full length of the lake and was approaching the shoreline, so he initiated a left turn in an attempt to regain a suitable landing surface. During the turn, the left wing and float contacted the water and the aircraft nosed over. Subsequent inspection failed to reveal the cause of the power loss.

82-Q20080

Piper PA-18

C-FDWK

DATE: 23 Oct 1982 1330 EDT
OPERATION: Private recreation
PLACE: Lac Starr Que 48/01N 71/39W
LOCALE: Lake water area 7500' long
WEATHER: Wind W 7 kt vis 15+ cloud 2500' ovc temp 2°C
PILOT: Private
TOTAL HOURS: 525 ALL TYPES 275 ON TYPE
LAST 90 DAYS: Unknown ALL TYPES 73 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj; pass: 1 uninj.
OCCURRENCE: Hoping to do a weather check the pilot cleared the snow off the wings and taxied out to take off from a lake surface. There was light snow falling at the time. The aircraft took much longer than usual on the take-off run, and once airborne, would not accelerate or climb above 200 feet. When the pilot turned back towards the lake to land a high rate of sink developed which resulted in a hard landing. The airframe was substantially damaged and the aircraft eventually sank. Subsequent inspection failed to reveal the reason for the poor performance.

82-Q20084

Cessna A185E

CF-EKL

DATE: 9 Nov 1982 1555 EST
OPERATION: Charter
PLACE: Ste Croix Arpt Que 46/38N 71/48W
LOCALE: Paved and gravel runway 2600' by 60' 188' ASL
WEATHER: Not significant
PILOT: Commercial
TOTAL HOURS: 850 ALL TYPES 650 ON TYPE
LAST 90 DAYS: unknown ALL TYPES unknown ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj.
OCCURRENCE: The pilot stated that after landing long, he lost directional control as the aircraft rolled from the gravel to the paved segment of the runway. The aircraft veered right and came to rest in a ditch bordering the runway. The prop, motor, wings and gear attachment points were damaged.

82-Q20803

Cessna 140

C-FWNR

DATE: 12 Dec 1982 1400 EST
OPERATION: Private – other
PLACE: Amos Arpt Que 48/34N 78/15W
LOCALE: Paved runway 4000' by 75' 1068' ASL
WEATHER: Wind NW 5 kt vis 15 + sky clear temp -20°C
PILOT: Student

TOTAL HOURS:	73	ALL TYPES	25	ON TYPE
LAST 90 DAYS:	14	ALL TYPES	14	ON TYPE

DAMAGE: Substantial**CASUALTIES:** Crew: 1 uninj.

OCCURRENCE: Unable to start the aircraft, the pilot set the parking brake and swung the propeller. The engine started and as the pilot walked towards the cockpit, the aircraft started rolling. It accelerated and the pilot only managed to push on the tail to avoid a head-on collision with another aircraft. The propeller of the runaway aircraft struck the wing tip of the other, then hit a truck and finally came to rest against 2 other parked aircraft. Subsequent inspection revealed that the braking system had not been properly maintained.

82-Q20804

Cessna 172N

C-GZTE

DATE: 12 Dec 1982 1400 EST
OPERATION: Specialty training
PLACE: Amos Arpt Que 48/34N 78/15W
LOCALE: Paved runway 4000' by 75' 1068' ASL
WEATHER: Wind NW 5 kt vis 15 + sky clear temp -20°C
PILOT: Commercial

TOTAL HOURS:	1500	ALL TYPES	1200	ON TYPE
LAST 90 DAYS:	200	ALL TYPES	200	ON TYPE

DAMAGE: Substantial**CASUALTIES:** Crew: 2 uninj.

OCCURRENCE: The instructor, who was about to taxi with a student, looked up in time to see an unmanned aircraft approaching almost head-on. The propeller struck his left wing tip while his own propeller struck the other aircraft's left wing tip. As his aircraft swung left, the other continued a haphazard course, finally stopping against two other aircraft.

82-Q20901

Pitts 52-A

N6MC

DATE: 25 Jun 1982 1700 EDT
OPERATION: Private business
PLACE: Sherbrooke Que 45/18N 71/47W
LOCALE: Pitch-bordered gravel road
WEATHER: Wind WSW 2 kt vis 1/2 cloud 200' OVC temp 13°C
PILOT: Commercial

TOTAL HOURS:	4200	ALL TYPES	1600	ON TYPE
LAST 90 DAYS:	40	ALL TYPES	12	ON TYPE

DAMAGE: Substantial**CASUALTIES:** Crew: 1 uninj.

OCCURRENCE: When the pilot arrived in the vicinity of his enroute fuel stop, the weather had deteriorated below VFR conditions. Unable to proceed to the airport because of low cloud, he decided to carry out a precautionary landing on a gravel road. During the landing roll the right main gear entered tall grass and the aircraft swung to the right. The machine rolled into the tall grass and went over on its back, damaging the engine mounts, propeller and tail section.

82-Q20090

Aerospatiale AS350D

C-GVYJ

DATE: 29 Dec 1982 1130 EST
OPERATION: Charter
PLACE: 72 mi SSE of LG-2 Que 52/39N 77/05W
LOCALE: Snow-covered frozen lake
WEATHER: Wind WNW 8 kt, vis 15 + cloud SCT temp -26°C
PILOT: Commercial Rotocraft
TOTAL HOURS: 2000 ALL TYPES 400 ON TYPE
LAST 90 DAYS: unknown ALL TYPES unknown ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 serious; pass: 2 serious, 1 minor
OCCURRENCE: The helicopter pilot was on a routine patrol of a hydro line, flying at a low airspeed and altitude. After noting a possible defective insulator, a passenger requested the pilot to return for a closer inspection. During the turn over a lake, the pilot lost visual contact and the helicopter struck the surface.

It is believed that the loss of visual reference was due to a whiteout condition caused by rotor blade vortex. A passenger was able to alert the proper authorities of the crash, but rescue did not occur until 31/2 hours later.

83-Q30006

Cessna 172M

C-GAFN

DATE: 20 Feb 1983 1230 EST
OPERATION: Private recreation
PLACE: Mont Video Que 48/25N 77/39W
LOCALE: Sand runway 3000' by 75'
WEATHER: Wind calm vis 15 cloud 3000' overcast temp -2°C
PILOT: Private
TOTAL HOURS: 120 ALL TYPES 115 ON TYPE
LAST 90 DAYS: 40 ALL TYPES 40 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj; pass: 3 uninj.
OCCURRENCE: Returning from a local sightseeing trip, the pilot and three passengers landed on a partially cleared snow-covered private strip. As the aircraft drifted left during the landing roll, the gear ran into snow and the machine swung to the left. The aircraft struck a snowbank bordering the runway and damaged the propeller, engine cowl and right wing.

83-Q30008

Piper PA-22

C-FGCM

DATE: 6 Mar 1983 1243 EST
OPERATION: Private recreation
PLACE: Val D'Or Arpt Que 48/03N 77/47W
LOCALE: Paved runway 10000' by 200' 1106' asl
WEATHER: Wind E 5 G 13 kt vis 15 sky clear temp -8°C
PILOT: Commercial licence
TOTAL HOURS: 809 ALL TYPES 167 ON TYPE
LAST 90 DAYS: 6 ALL TYPES 6 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj; pass: 1 minor, 1 uninj.
OCCURRENCE: Landing in a 10 kt crosswind gusting from the right, the pilot applied left rudder to keep the aircraft aligned with the runway. As the speed decreased, the right wing came up and the aircraft swung to the left. The pilot was unable to arrest the movement and the aircraft veered to the left of the runway, struck a snowbank and went over on its back.

83-Q30011

Cessna A185F

C-GAEH

DATE: 9 Mar 1983 0850 AST
OPERATION: Charter
PLACE: Lac Robe Noire Que 50/42N 62/42W
LOCALE: Frozen snow-covered lake
WEATHER: Wind N 5 kt vis 20+ cloud 5000' scattered
PILOT: Commercial
TOTAL HOURS: 1156 ALL TYPES 538 ON TYPE
LAST 90 DAYS: 123 ALL TYPES 123 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj; pass: 2 uninj.
OCCURRENCE: While landing on a lake covered with icy snowdrifts, the left main gear attachment failed. The gear collapsed and the left wing, fuselage and propeller were damaged.

83-Q30012

Cessna 172

C-GQNO

DATE: 12 Mar 1983 1215 EST
OPERATION: Private recreation
PLACE: Ste Thérèse Arpt Que 45/42N 73/48W
LOCALE: Paved runway 2600' by 35' 230' asl
WEATHER: Wind NNE 10 kt vis 25 cloud scattered temp 7°C
PILOT: Private
TOTAL HOURS: 157 ALL TYPES 100 ON TYPE
LAST 90 DAYS: 20 ALL TYPES 20 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 minor; pass: 2 uninj.
OCCURRENCE: At a height of about 10 feet, on the go-around from a touch-and-go landing, the pilot felt he would be unable to clear hydro wires crossing the departure path. He closed the throttle, landed on the remaining 100 feet of runway and applied full brakes. The aircraft travelled about 600 feet, and crossed a ditch and a road before coming to a stop against a hydro pole. The nose and main gear failed as the aircraft crossed the ditch. One hour after the accident winds were north easterly at 10 knots, favouring runway 07, but aircraft were using runway 24.

The technical examination revealed no evidence of engine malfunction (LP 248/83 refers).

83-Q30013

Cessna 172M

C-GAZK

DATE: 16 Mar 1983 1647 EST
OPERATION: Specialty recreation
PLACE: Dolbeau Lac St Jean Que 48/47N 72/22W
LOCALE: Sand runway 5600' by 150' 370' asl
WEATHER: Wind calm vis 15 cloud 1200' broken temp 3°C
PILOT: Private
TOTAL HOURS: 114 ALL TYPES 50 ON TYPE
LAST 90 DAYS: 1 ALL TYPES 1 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj; pass: 2 uninj.
OCCURRENCE: As the pilot applied power for a go-around on a touch-and-go landing, the left gear struck a puddle of water. The aircraft swung to the left and continued to the side of the runway; it struck a snowbank and nosed over on its back.

83-Q30014

Piper J4A

C-FJXD

DATE: 26 Mar 1983 1105 EST
OPERATION: Private recreation
PLACE: Sorel Airport Que 45/59N 73/03W
LOCALE: Tree-covered area bordering runway
WEATHER: Wind NE 6 kt cloud scattered temp 1°C
PILOT: Private
TOTAL HOURS: 326 ALLTYPES 122 ON TYPE
LAST 90 DAYS: 15 ALL TYPES 15 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj; pass: 1 uninj.
OCCURRENCE: After take-off, at about 50 feet agl, the pilot realized that the ailerons were stuck. He cut power to land on the strip but was unable to prevent the aircraft from drifting left into the trees along the runway.

Subsequent inspection revealed that a layer of ice on the wing had prevented aileron movement. It is evident that the pilot forgot to check the flight controls before take-off.

83-Q30019

Hawker Siddeley DH-125-1A

C-FSEN

DATE: 19 Apr 1983 0323 AST
OPERATION: State
PLACE: Gaspé Arpt Que 48/47N 64/29W
LOCALE: Ice-covered paved runway 4000' by 150' 108' ASL
WEATHER: Wind calm vis 6 sky obscured temp -1°C
PILOT: Airline Transport
TOTAL HOURS: 18000 ALL TYPES 4500 ON TYPE
LAST 90 DAYS: 90 ALL TYPES 40 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 2 uninj; pass: 1 uninj.
OCCURRENCE: Following the landing on a wet runway, the pilot was unable to stop in the available distance. During the latter part of the landing roll, directional control was lost and the aircraft slid sideways off the end of the runway. Prior to departure, the crew had been advised by company dispatcher, that the runway was bare and wet and the temperature was near zero degrees. After the occurrence, the crew reported a thin layer of ice.

A review of the landing charts indicated that at a weight of 18,500 lbs under normal conditions, the aircraft would require a landing distance of 3800 feet. Under wet conditions, the landing field length has to be increased by 15 per cent in accordance with FAR 121. The required distance would be 4370 feet, 370 feet greater than what was available.

83-Q30020

Cessna 152

C-GBGX

DATE: 24 Apr 1983 1500 EDT
OPERATION: Flying Club training
PLACE: Trois Rivières Arpt Que 46/21N 72/41W
LOCALE: Paved runway 6000' by 150' 198' asl
WEATHER: Wind NE 5 kt vis 15 cloud 2000'
PILOT: Student
TOTAL HOURS: 32 ALL TYPES 8 ON TYPE
LAST 90 DAYS: 30 ALL TYPES 8 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj.
OCCURRENCE: The student had just touched down while practising touch-and-go landings. He went to select carburettor heat cold and retract flaps, and when he looked up, saw the aircraft heading to the left side of the runway. When the aircraft did not seem to respond to

application of right rudder, he applied full power to take off. The aircraft continued off the runway and stopped in soft ground; the nosewheel was buried in the mud and the propeller, lower cowling, engine mounts, nose oleo and right wing were substantially damaged.

83-Q30022

Cessna A185F

C-GDIT

DATE: 9 May 1983 1200 EDT
OPERATION: Specialty inspection
PLACE: Parc Laverendrye Que 46/14N 76/05W
LOCALE: Tree-covered mountains
WEATHER: Wind N 8 kt vis 15 cloud 1500' overcast temp 3°C
PILOT: Commercial
TOTAL HOURS: 5200 ALL TYPES 3000 ON TYPE
LAST 90 DAYS: 100 ALL TYPES 100 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 serious
OCCURRENCE: As was the custom, the pilot overflowed the camp at low altitude to alert ground crew of his arrival. It was noted that during the pass, the aircraft was lower than usual and in a left turn. As he overflowed the camp, the pilot was observed looking down at the technicians while in the high speed left turn. The aircraft struck trees some 400 feet beyond the camp and crashed into the forest.

83-Q30024

Piper PA18S-150

C-FLLB

DATE: 15 May 1983 0930 EDT
OPERATION: Private test
PLACE: Unnamed lake near Lac St Jean Que 48/28N 71/48W
LOCALE: Lake water area 5000' by 5000'
WEATHER: Wind W 6kt vis 12 cloud 2000' OVC temp 12°C
PILOT: Private
TOTAL HOURS: 333 ALL TYPES 191 ON TYPE
LAST 90 DAYS: 6 ALL TYPES 6 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 fatal.
OCCURRENCE: The pilot took off from the lake on a test flight. His homemade boat was strapped to the left struts of the aircraft. Although the aircraft had been approved for carrying a canoe, the rowboat, in contrast, had a flat bottom and a blunt bow and stern. Furthermore, the way he positioned the load resulted in a forward C of G near the limit; to compensate, the trim was almost fully nose-up.

The aircraft flew some distance down the lake after take-off. While near the shore the aircraft climbed, then banked to the right and yawed left. At this moment, the right wing and float struck the water. It appears the pilot could not maintain control of the aircraft given the load.

83-Q30025

Piper PA24-250

C-FMEH

DATE: 15 May 1983 1145 AST
OPERATION: Private recreation
PLACE: Ste Anne des Monts Arpt Que 49/07N 66/32W
LOCALE: Gravel runway 3600' by 75' 72' asl
WEATHER: Wind W 10 kt vis 10 cloud 1200' scattered
PILOT: Private
TOTAL HOURS: 640 ALL TYPES 640 ON TYPE
LAST 90 DAYS: 33 ALL TYPES 33 ON TYPE

DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj.
OCCURRENCE: While taxiing on the runway, the aircraft struck a hole about 10 inches deep; the right main gear bent back sufficiently to wrinkle the upper and lower wing surfaces. Airport maintenance personnel failed to advise operators of this hazard.

83-Q30026

Cessna A185F

C-GMDA

DATE: 20 May 1983 1915 EDT
OPERATION: Charter
PLACE: 11/2 NM N of Lac Adonis Que 47/28N 74/40W
LOCALE: Tree-covered hills 1500' asl
WEATHER: Wind calm vis 15 cloud 7000' overcast temp 16°C
PILOT: Commercial
TOTAL HOURS: 3027 ALL TYPES 1667 ON TYPE
LAST 90 DAYS: 17 ALL TYPES 17 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj.
OCCURRENCE: Shortly after take-off from a lake, the engine failed. The emergency fuel pump was activated, causing the engine to restart momentarily; however, limited altitude prevented the pilot from attempting an additional restart. Without the necessary height to glide to a lake, the pilot selected full flaps and stalled the aircraft just prior to striking the trees; it fell, nose-down, to the ground.

Investigation established that although the fuel system had been drained prior to flight, all the water had not been removed. This contamination caused the engine failure. The fuel drains on this aircraft are designed for a tailwheel configuration and not for float-equipped machines. The manufacturer has since incorporated a drain at the lowest point in the system suitable for the aircraft on floats; however, this change is not mandatory for earlier models.

83-Q30028

Cessna 150L

C-GQMI

DATE: 28 May 1983 1310 EDT
OPERATION: Private recreation
PLACE: Sanikiluaq NWT 56/32N 79/15W
LOCALE: Rocky grass-covered area
WEATHER: Wind NE 4 kt vis 1/2 in fog and drizzle
PILOT: Private
TOTAL HOURS: 116 ALL TYPES 62 ON TYPE
LAST 90 DAYS: 62 ALL TYPES 62 ON TYPE
DAMAGE: Destroyed
CASUALTIES: Crew: 1 fatal
OCCURRENCE: Though the airport was covered in fog, the aircraft was heard approaching, apparently with the intention of landing after a local flight. A short time later as the fog lifted a little, a worker in the terminal saw that the aircraft had crashed near the runway. Inspection showed that the aircraft had impacted while under power, on the left wing and nose. It was assumed that the low-time pilot, who lacked knowledge of instrument flying, experienced spatial disorientation and lost control of the aircraft when he entered the fog layer.

83-Q30029

Norseman IV

C-FFJB

DATE: 30 May 1983 1424 EDT
OPERATION: Charter
PLACE: 15 mi S of La Tuque Arpt Que 47/12N 72/55W
LOCALE: Tree-covered mountains 650' asl
WEATHER: Wind E 15 kt sky OBS with fog and rain showers
PILOT: Commercial
TOTAL HOURS: 8831 ALL TYPES 5271 ON TYPE
LAST 90 DAYS: 199 ALL TYPES 57 ON TYPE
DAMAGE: Destroyed
CASUALTIES: Crew: 1 fatal; pass: 2 fatal, 2 serious.
OCCURRENCE: The aircraft was on a return flight to base. While following a valley in bad weather the pilot attempted to turn back. During the turn the left wing struck trees, causing the aircraft to disintegrate.

The pilot may have had a case of "get-home-itis" as other company aircraft had just completed their trips in the area. He may have also been suffering from fatigue as he had been flying in poor weather for three weeks.

The cargo was not tied down; this may have increased the severity of the injuries sustained by the occupants.

83-Q30030

Raz-mut 440A

C-GBUH

DATE: 4 Jun 1983 0635 EDT
OPERATION: Private recreation
PLACE: St Honore Arpt Que 48/31N 71/03W
LOCALE: Paved runway 6330' by 150' 540' asl
WEATHER: Wind E 5 kt vis 20 cloud 9000' scattered temp 18°C
PILOT: Student
TOTAL HOURS: 18 ALL TYPES 0 ON TYPE
LAST 90 DAYS: 18 ALL TYPES 0 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj.
OCCURRENCE: Though the student pilot was unsupervised and unfamiliar with the home-built aircraft, he taxied at varying speeds down the runway, then decided to take off on a short flight.

As the aircraft lifted off, he was surprised at the unexpected airflow in the open cockpit and cut the power abruptly to land straight ahead. He established a high rate of sink and touched down hard on the runway, damaging the longitudinal spar and main gear. The aircraft came to rest in the grass on the right side of the runway.

83-Q30032

Piper PA-12

C-GAQP

DATE: 11 Jun 1983 1400 EDT
OPERATION: Flying Club recreation
PLACE: Lac Nicole Que 48/57N 70/33W
LOCALE: Lake water area
WEATHER: Wind WNW vis 15+ sky clear temp 18°C
PILOT: Private
TOTAL HOURS: 460 ALL TYPES 30 ON TYPE
LAST 90 DAYS: 45 ALL TYPES 2 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj; pass: 1 uninj.
OCCURRENCE: After circling a lake to assess the wind direction, the pilot accepted a 60 degree crosswind from the left in order to use the longest part of the lake. After landing, he was unable to stop in time and the left wing collided with trees on the far shore. The pilot stated that the wind shifted and that he landed with a tailwind.

DATE: 14 Jun 1983 1853 EDT
OPERATION: Private recreation
PLACE: Rimouski Que 48/29N 68/30W
LOCALE: Paved runway 4600' by 150' 82' asl
WEATHER: Wind NE 3 kt vis 15 cloud 23000' broken temp 19°C
PILOT: Private
TOTAL HOURS: 175 ALL TYPES 60 ON TYPE
LAST 90 DAYS: 12 ALL TYPES 3 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj; pass: 1 uninj.
OCCURRENCE: After approaching at too high an airspeed, the aircraft bounced several times on landing. As the airspeed decreased, the pilot applied power for go-around but the nose and main gear struck the runway after a bounce and he lost directional control. The aircraft swung left and came to rest in the grass some 125 feet from the runway centerline. The propeller, main gear, rudder and elevator were substantially damaged.

CARGAIR LTÉE
DEHAVILLAND DHC-2, CF-ZKU
OBEDJIWAN, GOUIN RESERVOIR, QUEBEC
14 JUNE 83

REPORT
NUMBER: 83-Q30037
LOCAL TIME: 1600 EDT
OPERATION: Charter
DAMAGE: Substantial
PILOT LICENCE: COMMERCIAL

PILOT HOURS:	ALL TYPES	ON TYPE
TOTAL	5600	4000
LAST 90 DAYS	100	100

INJURIES:	FATAL	SERIOUS	MINOR/NONE
CREW	—	—	1
PASSENGERS	—	—	—

SUMMARY REPORT: A left hand circuit was used to approach the lake from a downwind direction. Turning on final at 150 ft with 40° of bank, the pilot felt that the left wing was entering a stall. He corrected for this possibility by levelling the aircraft. With the turn discontinued, and at low level, the floatplane was now poorly aligned for landing, heading directly for a loading dock crowded with people. An abrupt left turn was initiated to avoid them resulting in left wing tip contact with the water. The aircraft cartwheeled, inverted and sank in shallow water. The pilot exited through his side window.

The approach was not set up far enough out to align the aircraft for landing. The downwind condition caused the aircraft to drift closer to the landing area during the turn, further reducing the length of the final leg. An altitude of 150 ft was too low and the aircraft bank of 40° too steep to allow the pilot to maintain good visual reference with the water.

A missed approach was not initiated and the sharp left turn to avoid the people, further aggravated the pilot's ability to maintain visual reference with the water.

83-Q30039

Cessna 150M

C-GAJR

DATE: 22 Jun 1983 2152 EDT
OPERATION: Private recreation
PLACE: Lac Bryson Que 47/09N 79/17W
LOCALE: Swampy area in mountainous terrain
WEATHER: Wind light vis 15+ sky clear
PILOT: Private
TOTAL HOURS: 220 ALL TYPES 90 ON TYPE
LAST 90 DAYS: 16 ALL TYPES 16 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj; pass: 1 minor, 2 uninj.
OCCURRENCE: When he encountered thunderstorms along track, the pilot decided to return to his point of departure. Some 8 miles short of destination, the engine failed due to fuel exhaustion. The pilot set up a pattern to carry out a forced landing in a clearing; just before touchdown, the left wing struck a tree trunk and the aircraft overturned.

83-Q30040

Cessna 180C

C-FMKG

DATE: 23 Jun 1983 1625 EDT
OPERATION: Private recreation
PLACE: Lac Laroche Que 49/46N 71/51W
LOCALE: Lake water area
WEATHER: Wind SW 20 kt vis 8 cloud 4000' bkn temp 21°C
PILOT: Commercial
TOTAL HOURS: 574 ALL TYPES 431 ON TYPE
LAST 90 DAYS: 18 ALL TYPES 18 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj.
OCCURRENCE: During the take-off run, a strong gust of wind lifted the tail of the aircraft causing it to nose over. The pilot was aware of an approaching thunderstorm and was trying to depart before the storm arrived. However, the strong gusty winds that usually precede a storm cell caught the aircraft as the pilot was taking off.

83-Q30041

Piper PA-31

C-GQGU

DATE: 27 Jun 1983 2215 EDT
OPERATION: Charter
PLACE: Near Natasquan Arpt Que 50/11N 61/48W
LOCALE: Flat grass-covered area 35' Asl
WEATHER: Wind W 6 kt vis 0 sky obscured with fog temp 9°C
PILOT: Airline Transport
TOTAL HOURS: 8500 ALL TYPES 1500 ON TYPE
LAST 90 DAYS: 200 ALL TYPES 175 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj; pass: 3 minor, 3 uninj.
OCCURRENCE: When the pilot departed on a night VFR flight, good visual conditions at destination were reported. As weather reports for destination were available only every 3 hours he also obtained an altimeter setting prior to departure; however, he did not remember whether or not he reset his altimeter.

On arrival at destination he found the airport covered in fog and decided to do an ADF approach. As he approached inbound, he saw the runway lights to one side, so he turned to the right to start circling. During the turn he felt the right wing strike the ground, and applied full power to initiate a climb. The aircraft, however, settled to the ground and slid some 475 feet before coming to a stop. Inspection of the wreckage showed the altimeter reading in error of approximately 400 feet above airport elevation.

83-Q30042

Glasflugel 201B

CF-BDC

DATE: 24 Jun 1983 1600 EDT
OPERATION: Private training
PLACE: St-Antoine-sur-Richelieu Que 45/48N 73/13W
LOCALE: Flat grass-covered area 2700' by 60'
WEATHER: Wind NNW 5 kt vis 20 sky clear
PILOT: Glider licence
TOTAL HOURS: 167 ALL TYPES 76 ON TYPE
LAST 90 DAYS: 11 ALL TYPES 11 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj.
OCCURRENCE: While being towed for take-off, the glider's left wing struck the ground, inducing a yaw to the left. Unable to stop the yaw the glider pilot released from the tow-plane and attempted to abort the take-off. However, the yaw to the left was aggravated by long grass along the strip; the glider swung left and came to rest across a drainage ditch.

83-Q30043

Cessna 150F

CF-UHJ

DATE: 24 Jun 1983 2040 EDT
OPERATION: Private recreation
PLACE: Ormstown Que 45/08N 74/00W
LOCALE: Dirt runway 2500' by 50'
WEATHER: Wind NW 3 kt vis 15 + cloud 5000' broken temp 18°C
PILOT: Commercial
TOTAL HOURS: 808 ALL TYPES 30 ON TYPE
LAST 90 DAYS: 9 ALL TYPES 9 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj; pass: 1 uninj.
OCCURRENCE: After landing on a dirt strip, the pilot was unable to control the aircraft when the left main gear struck a rut. The machine swung left, rolled off the strip and went down on its nose; the nose gear was torn off in the soft ground alongside the runway.

83-Q30044

Bell 206L

C-GVYM

DATE: 28 Jun 1983 2040 EDT
OPERATION: Other
PLACE: Ste Marceline Que 46/06N 73/36W
LOCALE: Flat cultivated field
WEATHER: Wind WNW 3 kt vis 25 cloud 5000' broken temp 16°C
PILOT: Commercial Rotorcraft
TOTAL HOURS: 3250 ALL TYPES 1047 ON TYPE
LAST 90 DAYS: 160 ALL TYPES 80 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj.
OCCURRENCE: During a practice autorotation, the pilot commenced his flare at about 25 feet agl when he became aware that the wind velocity had decreased. He levelled the helicopter intending to do a run on landing, but the rpm had decayed; the helicopter rapidly began to lose height and landed hard.

83-Q30045

Champion 7GCBC

C-FMJB

DATE: 29 Jun 1983 1915 EDT
OPERATION: Private recreation
PLACE: Riviere Outaouais Que 45/52N 76/45W
LOCALE: Swampy area at river edge
WEATHER: Wind calm, vis 15+ sky clear
PILOT: Private
TOTAL HOURS: 560 ALL TYPES 150 ON TYPE
LAST 90 DAYS: Unknown ALL TYPES Unknown ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj; pass: 1 uninj.
OCCURRENCE: The pilot of the floatplane was only a few miles from destination when he started descent. As he decreased power, the engine failed. Unable to glide to his designated landing area, he elected to make a forced landing in a swamp. The aircraft struck the water with a too high rate of descent, causing substantial damage to the floats, propeller and engine mounts. Subsequent inspection revealed that the engine failed from fuel exhaustion.

83-Q30046

Cessna 404

C-GZDY

DATE: 4 Jul 1983 0741 EDT
OPERATION: Charter
PLACE: Baie Comeau Arpt Que 49/08N 68/12W
LOCALE: Paved runway 6000' by 150' 71' asl
WEATHER: Wind E 4 kt vis 12 sky clear temp 14°C
PILOT: Airline Transport
TOTAL HOURS: 2427 ALL TYPES 273 ON TYPE
LAST 90 DAYS: 192 ALL TYPES 51 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj; pass: 1 uninj.
OCCURRENCE: After take-off, the landing gear failed to retract. When selected down, it appeared to function normally and the pilot elected to land at the departure airport. As the nosewheel was eased onto the runway, the pilot realized the nose was unusually low and attempted to pull it up. The aircraft skidded to a stop on its nose. Before turning off the battery switch, the pilot noticed that the three green lights for the gear were still on.

The nose gear rod end bearing, which attaches the nose gear actuator to the drag brace assembly, failed. Due to the design of the nose gear warning system, the nose down lock switch mounted on the end of the actuating cylinder, when actuated, only indicates that the nose gear actuator is fully extended, regardless of the position of the nose gear. Should the actuator become disengaged from the drag brace, it appears the nose gear is down and locked.

83-Q30047

de Havilland DHC-2

C-FDVK

DATE: 1 Jul 1983 1045 EDT
OPERATION: Charter
PLACE: Lac Dugan Que 50/08N 68/14W
LOCALE: Tree-covered mountains
WEATHER: Wind SW 35 kt vis 3 cloud 400' overcast temp 14°C
PILOT: Senior Commercial
TOTAL HOURS: 14000 ALL TYPES Unknown ON TYPE
LAST 90 DAYS: 173 ALL TYPES 166 ON TYPE
DAMAGE: Destroyed
CASUALTIES: Crew: 1 fatal; pass: 4 fatal

OCCURRENCE: The pilot was flying four passengers to a fishing camp when he encountered deteriorating weather. Some 40 minutes after take-off, the aircraft was seen flying over a lake at 300 to 400 feet AGL, then disappearing into low cloud. Five minutes later, two fishermen on another lake heard engine noise but could not see the aircraft because of a thick layer of fog. After a short time, the engine sound terminated abruptly followed by an explosion-like noise. The almost destroyed aircraft was found a few hours later in thick bush on higher ground.

83-Q30048

Aeronca 15AC

C-FAEZ

DATE: 4 Jul 1983 1915 EDT
OPERATION: Private recreation
PLACE: near Lac Branch Que 47/47N 74/24W
LOCALE: Dirt road in mountainous area
WEATHER: Wind SW 20 kt vis 20 sky clear temp 27°C
PILOT: Private
TOTAL HOURS: 106 ALL TYPES 13 ON TYPE
LAST 90 DAYS: 17 ALL TYPES 13 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj; pass: 1 uninj.
OCCURRENCE: As the pilot was turning onto final, the engine stopped. Unable to reach the lake because of his low height, he elected to land on a bush road. The aircraft struck tree tops and fell to the road.

Inspection of the wing fuel cells revealed that the right cell was partially detached from the wing structure suggesting that the cell did not have the full available capacity even though the gauge indicated full. As the aircraft was banked to the left during the approach, it is suspected that the engine stopped due to fuel starvation as the right tank was the feeder tank. Airworthiness Directive 68-20-5 requiring the inspection of the fuel tanks every 50 hours had not been complied with.

83-Q30049

Champion 7FC

CF-IDQ

DATE: 17 Jul 1983 1805 EDT
OPERATION: Private recreation
PLACE: St Perpetue Aerodrome Que 46/05N 72/27W
LOCALE: Flat grass-covered field
WEATHER: Wind NW 5 kt vis 15+ sky clear temp 20°C
PILOT: Private
TOTAL HOURS: 176 ALL TYPES 51 ON TYPE
LAST 90 DAYS: 29 ALL TYPES 29 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj; pass: 1 uninj.
OCCURRENCE: On final approach to the grass field, the pilot misjudged his height and flared high. The aircraft developed a high sink rate and touched down hard; the left main gear collapsed.

83-Q30050

Pitts Special S-1 (Homebuilt)

C-GEAA

DATE: 24 Jul 1983 1940 EDT
OPERATION: Private recreation
PLACE: Rimouski Que 48/27N 68/34W
LOCALE: Hilly tree-covered area
WEATHER: Wind W 10 kt vis 9+ cloud 5000' scattered temp 14°C
PILOT: Private
TOTAL HOURS: 170 ALL TYPES 13 ON TYPE

LAST 90 DAYS:	Unknown	ALL TYPES	Unknown	ON TYPE
DAMAGE:	Destroyed			
CASUALTIES:	Crew: 1 fatal			
OCCURRENCE:	Four aircraft took off in formation back to home base. Enroute, the pilot maintained close proximity to the others. As the formation came into sight of home base, another pilot in the formation observed him to descend and cross under his wing. Ground observers saw the aircraft enter a spiral and crash into some trees. Though pilot incapacitation was strongly suspected, it could not be corroborated and subsequent investigation failed to reveal any cause for the descent and crash.			

83-Q30052	Cessna 180J	C-GEQO
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DATE:	28 Jul 1983 1600 EDT			
OPERATION:	Private recreation			
PLACE:	4 NM SSW of Lac Raccourci Que 50/32N 70/14W			
LOCALE:	Tree-covered hills			
WEATHER:	Vis 5 cloud 750' overcast with thunder showers			
PILOT:	Private			
TOTAL HOURS:	3200	ALL TYPES	Unknown	ON TYPE
LAST 90 DAYS:	Unknown	ALL TYPES	Unknown	ON TYPE
DAMAGE:	Destroyed			
CASUALTIES:	Crew: 1 fatal; pass: 3 fatal			
OCCURRENCE:	The pilot departed on a pleasure flight in marginal VFR conditions. When he failed to return 3 days later, a search was initiated. The aircraft was located 6 miles from its destination. It had struck the surface in a 30 degree nose-down, and 60 degree left wing low attitude. It is suspected that the pilot encountered deteriorating weather, and as he attempted to turn back, lost control of the aircraft. Low clouds and thundershowers were reported in the area.			

83-Q30055	Cessna 177RG	CF-KWQ
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DATE:	11 Aug 1983 1946 EDT			
OPERATION:	Private business			
PLACE:	Dorval Arpt Que 45/28N 73/45W			
LOCALE:	Paved runway 9600' by 200' 117' ASL			
WEATHER:	Wind SE 7 kt vis 15 cloud 1200' OVC temp 18°C			
PILOT:	Private			
TOTAL HOURS:	635	ALL TYPES	490	ON TYPE
LAST 90 DAYS:	45	ALL TYPES	45	ON TYPE
DAMAGE:	Minor			
CASUALTIES:	Crew: 1 uninj.			
OCCURRENCE:	The pilot decided to land long to save taxi time. As he flared, the aircraft drifted to the left side of the runway and the left wing struck a lighted runway marker 98 feet from the side. The lower left wing, flap and pitot head were damaged. The pilot brought the aircraft back to the runway and taxied to the ramp.			

No explanation was found as to why the aircraft drifted to the left.

83-Q30056	Bell 206B	C-GTVB
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DATE:	18 Aug 1983 1317 EDT		
OPERATION:	Aerial inspection		
PLACE:	15 mi NW of Roberval Que 48/39N 72/37W		
LOCALE:	Rocky hills 1100' asl		
WEATHER:	Wind light vis 10 cloud 2400' scattered temp 22°C		
PILOT:	Commercial Rotorcraft		

TOTAL HOURS:	3595	ALL TYPES	1400	ON TYPE
LAST 90 DAYS:	97	ALL TYPES	97	ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 minor; pass: 1 minor

OCCURRENCE: The pilot brought the helicopter into a hover and started to move forward up a slight incline. The sloping surface was quite rough with tree stumps and roots in the take-off area. After moving forward about 5 feet on the incline, the pilot applied collective for departure; the helicopter rolled abruptly to the left, coming to rest on its left side after losing the main rotor and tail boom. Inspection of the site revealed paint scrapes from the left skid on a root protruding from the ground. The pilot mentioned that the helicopter may have been drifting left just before the occurrence. It can only be concluded that dynamic roll-over occurred when the left skid was effectively stopped from moving sideways.

83-Q30057

Aerospatiale AS350D

C-GLNO

DATE: 25 Aug 1983 1615 EDT

OPERATION: Charter

PLACE: Lac au Loup Marin Que 49/21N 68/43W

LOCALE: Lake water and sandy lake shore

WEATHER: Not significant

PILOT: Commercial Rotorcraft

TOTAL HOURS:	4300	ALL TYPES	800	ON TYPE
LAST 90 DAYS:	166	ALL TYPES	166	ON TYPE

DAMAGE: None

CASUALTIES: Crew: 1 uninj; Pass: 1 serious, 3 uninj.

OCCURRENCE: After selecting a narrow sandy area for touchdown, the pilot had to land parallel to the shore and place the left skid in the water because of the sloping terrain. The left rear seat passenger disembarked, proceeded rearward under the tail boom and was struck by the tail rotor blades.

The passengers had not been briefed on how to safely enter and exit the aircraft.

83-Q30059

Cessna 180C

C-FZWW

DATE: 2 Sep 1983 1345 EDT

OPERATION: Private recreation

PLACE: Rollet Que 47/56N 79/15W

LOCALE: Flat tree covered area

WEATHER: Wind SW 6 kt vis 15 cloud 2000' OVC temp 20°C

PILOT: Private

TOTAL HOURS:	450	ALL TYPES	35	ON TYPE
LAST 90 DAYS:	16	ALL TYPES	16	ON TYPE

DAMAGE: Destroyed

CASUALTIES: Crew: 1 uninj; pass: 1 uninj.

OCCURRENCE: After the pilot had descended to a lower altitude at idle power, he applied power to continue to the landing area. The engine began balking and lost power. He attempted to reach a clearing for his forced landing but collided with trees bordering the area.

The temperature-dewpoint spread was only 2 degrees. This condition was ideal for serious carburettor icing at glide power.

83-Q30060

Piper PA-12

C-GAZI

DATE: 2 Sep 1983 1500 EDT
OPERATION: Private Recreation
PLACE: 4 mi S lac Isidore Que 49/10N 69/39W
LOCALE: Tree-bordered gravel road 1300' by 12'
WEATHER: Wind 15 kt gusting vis 15 cloud 3000' broken temp 20°C
PILOT: Private
TOTAL HOURS: 1325 ALL TYPES 720 ON TYPE
LAST 90 DAYS: 25 ALL TYPES 25 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj; pass: 1 uninj.
OCCURRENCE: The pilot was landing on a short stretch of forestry road when the left wing struck some small trees. The aircraft swung to the left and plunged into a large ditch.

83-Q30062

Aeronca 7AC

C-FAEE

DATE: 7 Sep 1983 1000 EDT
OPERATION: Private recreation
PLACE: Lanoraie Que 45/58N 73/13W
LOCALE: Dirt farm-machine road 2000' long
WEATHER: Not significant
PILOT: Commercial
TOTAL HOURS: 800 ALL TYPES 250 ON TYPE
LAST 90 DAYS: unkonwn ALL TYPES 55 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj.
OCCURRENCE: In preparation for departure, the pilot taxied the aircraft towards the strip. The taxiway and the strip were actually roads used only by farm vehicles. As he approached the strip he had to stop to allow a truck to pass, but unfortunately, the taxiway was bordered by tobacco plants which hid the aircraft from view. The truck driver failed to see the aircraft and ran into it.

83-Q30063

Lake LA4-200

C-FFPB

DATE: 10 Sep 1983 1202 EDT
OPERATION: Private recreation
PLACE: Chute des Passes Que 49/53N 71/15W
LOCALE: Tree and swamp-bordered river
WEATHER: Wind NW 5G15 Kt vis 15+ cloud 3500' SCT temp 15°C
PILOT: Commercial
TOTAL HOURS: 1350 ALL TYPES 850 ON TYPE
LAST 90 DAYS: 30 ALL TYPES 30 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj; pass: 1 uninj.
OCCURRENCE: At about 150 feet agl, and after the pilot reduced the rpm and throttle to climb power, the aircraft suddenly lost altitude. He attempted to recover but the wings began striking tree tops.

He spotted an open area beside a river, and proceeded with a forced landing. The aircraft slid about 500 feet and came to rest partially submerged in the shallow river. It is suspected that the aircraft encountered a downdraft as it approached the lee of an 800 foot hill 2 miles northwest of the airport.

83-Q30064

Lake LA4-200

C-GGFK

DATE: 24 Sep 1983 1345 EDT
OPERATION: Private recreation
PLACE: Lac Carteret Que 49/49N 69/18W
LOCALE: Lake water area
WEATHER: Wind SW 4 kt vis 15 + sky clear temp 10°C
PILOT: Private
TOTAL HOURS: 723 ALL TYPES 680 ON TYPE
LAST 90 DAYS: 115 ALL TYPES 115 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj.
OCCURRENCE: The pilot lowered the gear to keep the aircraft from drifting while he used his radio. He then applied power to taxi to another area of the lake while simultaneously retracting the gear. As he taxied on the step, he felt the nose go down and the aircraft veer sharply left toward the shore; it struck tree stumps in the water, and was substantially damaged. Subsequent inspection revealed that the left nosewheel door push rod end bearing had failed through overload, causing the aircraft to move to the left.

83-Q30065

Aeronca 7AC

C-FUJH

DATE: 24 Sep 1983 1600 EDT
OPERATION: Private recreation
PLACE: Mascouche Arpt Que 45/43N 73/36W
LOCALE: Grass-bordered gravel runway 2600' by 50' 60' asl
WEATHER: Wind W 10 kt vis 15 + cloud 7000' broken temp 12°C
PILOT: Private
TOTAL HOURS: 88 ALL TYPES 16 ON TYPE
LAST 90 DAYS: 21 ALL TYPES 16 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj; pass: 1 uninj.
OCCURRENCE: As the tail wheel contacted the ground during the landing roll, a gust of wind raised the right wing and the aircraft veered to the left. The pilot tried to correct using right rudder but was unable to control the swing. He applied power in an attempt to overshoot, but the aircraft failed to become airborne and hit a drainage ditch.

83-Q30066

Piper PA-12

C-FLFY

DATE: 26 Sep 1983 1530 ADT
OPERATION: Private recreation
PLACE: Lac Smith Que 50/20N 66/24W
LOCALE: Lake water area
WEATHER: Wind S 2 kt vis 8 cloud 3000' overcast temp 10°C
PILOT: Private
TOTAL HOURS: 183 ALL TYPES 96 ON TYPE
LAST 90 DAYS: 51 ALL TYPES 51 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj; pass: 1 uninj.
OCCURRENCE: Having to circumnavigate areas of low cloud, the pilot took longer than anticipated on a return flight to home base. Six miles from destination, the engine failed from fuel exhaustion. Electing to make a forced landing on a lake, the pilot touched down with too high a rate of sink; the floats and attachment points were substantially damaged.

83-Q30070

Piper PA22S-160

CF-KKR

DATE: 9 Oct 1983 1530 EDT
OPERATION: Private recreation
PLACE: Lac Goth Que 48/16N 70/41W
LOCALE: Hill-bordered lake
WEATHER: Wind WNW 12 kt vis 20 cloud scattered temp 8°C
PILOT: Private
TOTAL HOURS: 1400 ALL TYPES 325 ON TYPE
LAST 90 DAYS: 12 ALL TYPES 12 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj; pass: 1 uninj.
OCCURRENCE: During final approach, the aircraft struck an electrical wire. The pilot was able to maintain control and land. He was familiar with the lake, but was completely unaware of the existence of the hydro wire.

83-Q30071

Cessna 185F

C-GVXU

DATE: 29 Jun 1983 1010 EDT
OPERATION: Specialty training
PLACE: Lac Sebastion Que 48/39N 71/09W
LOCALE: Lake water area 3000' by 1000' 580' ASL
WEATHER: Wind WNW 8 kt vis 20 cloud 3000' SCT temp 19°C
PILOT: Student
TOTAL HOURS: 117 ALL TYPES 20 ON TYPE
LAST 90 DAYS: 52 ALL TYPES 20 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj.
OCCURRENCE: Just after landing, an unexpected gust of wind lifted the right wing. The pilot tried to counter the movement by applying full opposite aileron, but was unable to prevent the left wing from striking the water.

83-Q30073

Cessna 310Q

CF-TQK

DATE: 29 Oct 1983 1025 EDT
OPERATION: Private recreation
PLACE: Rimouski Que 48/29N 68/30W
LOCALE: Paved runway 4600' by 150' 82' asl
WEATHER: Wind NW 12 kt vis 30 cloud 2100' broken temp 4°C
PILOT: Private
TOTAL HOURS: 3088 ALL TYPES 1316 ON TYPE
LAST 90 DAYS: 28 ALL TYPES 24 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj; pass: 1 uninj.
OCCURRENCE: The pilot did not use a checklist after establishing himself on straight-in final to the runway. During the approach, he continued to converse with his passenger and as he approached the runway, he heard a buzzer which he mistook for the stall warning. At the last moment he realized that the buzzing sound was the gear warning and selected the gear lever down. However, he was too late to prevent the aircraft from landing on its belly.

83-Q30074

Bell 206L

C-GVYN

DATE: 1 Nov 1983 1005 EST

OPERATION: Charter

PLACE: Harricana River Que 49/57N 78/49W

LOCALE: Tree-bordered river

WEATHER: Wind E 10 kt vis 15+ sky clear temp 6° C

PILOT: Commercial Rotorcraft

TOTAL HOURS: 1210 ALL TYPES 1010 ON TYPE

LAST 90 DAYS: 90 ALL TYPES 90 ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 1 uninj.

OCCURRENCE: As the pilot attempted to bring the helicopter to a hover over a river, he was unable to arrest the rate of sink despite the application of maximum power. The skids, fuselage, and tail rotor entered the water and the pilot lost control of the machine. He applied right cyclic and put the helicopter on its side in about 6 feet of water. Subsequent inspection of the engine concluded that it was under full power on touchdown.

83-Q30075

Hughes 369HS

C-FHNN

DATE: 10 Nov 1983 1400 EST

OPERATION: Commercial non-revenue

PLACE: Limbour Que 45/31N 75/44W

LOCALE: Gravel runway 2000' by 40' 360' ASL

WEATHER: Wind E 8 kt vis 15+ cloud 10000' BKN temp 8°C

PILOT: Commercial Rotorcraft

TOTAL HOURS: 9600 ALL TYPES 2500 ON TYPE

LAST 90 DAYS: unknown ALL TYPES 50 ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 2 uninj.

OCCURRENCE: The crew was conducting training exercises including autorotation practice. After completing ten power recovery autorotations, the pilot decided to conduct a power off autorotation to touchdown. Descent airspeed was maintained at 70 mph and in an attempt to extend the glide distance, the main rotor rpm was reduced to the low end of the acceptable range. At 50 feet, a normal flare was initiated. The aircraft touched down in a slight nose high attitude causing the rear of the skid gear to contact the ground. The helicopter became airborne and touched down in a nose low attitude and the tail boom was severed.

A combination of low rotor rpm, a hard landing and the possibility that aft cyclic was applied when the helicopter touched nose down, caused the main rotors to flap resulting in rotor/boom contact.

83-Q30076

Cessna 170B-160

C-FRIK

DATE: 10 Nov 83 1630 EDT

OPERATION: Commercial non-revenue

PLACE: Mont Ste Anne Que 47/05N 70/57W

LOCALE: Tree-covered mountain

WEATHER: Wind E 15G20 kt vis 30 cloud 9000' OVC temp 4°C

PILOT: Private

TOTAL HOURS: 300 ALL TYPES 200 ON TYPE

LAST 90 DAYS: 30 ALL TYPES 30 ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 1 uninj.

OCCURRENCE: While flying at low level in the lee of a mountain, the pilot encountered a downdraft from which he could not escape. He applied full power in an attempt to gain altitude, but continued to lose height and was forced to stall his aircraft into trees. The winds in the area were gusting to 20 knots.

83-Q30081

Cessna 150F

CF-SZR

DATE: 11 Dec 1983 1500 EST
OPERATION: Private recreation
PLACE: Rollet Que 47/56N 79/15W
LOCALE: Snow-covered airstrip 2200' by 110' 1000' asl
WEATHER: Wind NE 5 kt vis 15 cloud scattered above 1000'
PILOT: Student
TOTAL HOURS: 93 ALL TYPES 44 ON TYPE
LAST 90 DAYS: 11 ALL TYPES 11 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj.
OCCURRENCE: Just prior to lift-off, the aircraft began to drift sideways. The pilot became nervous and decided to abort the take-off. He closed the throttle, applied brake and tried to stop in the remaining distance. The braking action was poor due to the light snow on the frozen ground and the aircraft skidded 50 feet past the end and came to rest inverted in rough terrain.

83-Q30082

Cessna 172M

C-GEDH

DATE: 15 Dec 1983 1515 EST
OPERATION: Private recreation
PLACE: St Hubert Arpt Que 45/31N 73/25W
LOCALE: Flat paved area on airport
WEATHER: Wind W 11 kt vis 15 cloud 4500' broken temp 5°C
PILOT: Private
TOTAL HOURS: 500 ALL TYPES 450 ON TYPE
LAST 90 DAYS: 54 ALL TYPES Unknown ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj; pass: 1 uninj.
OCCURRENCE: An engine fire occurred when the pilot used a too rich mixture on starting. Rather than cut the fuel he continued to start the engine. When the fire increased, the pilot and his passenger evacuated the aircraft without carrying out the checklist procedures. The fire was extinguished using a portable extinguisher, but not before some engine components were damaged.

83-Q30901

Piper PA32-R300

N7236U

DATE: 20 Jan 1983 0055 EST
OPERATION: International Charter
PLACE: Dorval Arpt Que 45/28N 73/45W
LOCALE: Packed snow and ice-covered taxiway
WEATHER: Not significant
PILOT: Commercial
TOTAL HOURS: 2000 ALL TYPES 450 ON TYPE
LAST 90 DAYS: 175 ALL TYPES 120 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj.
OCCURRENCE: After landing, the pilot proceeded in accordance with his clearance. As he came abeam the docking area, he scanned the area for ground traffic, then commenced a turn to the right towards the parking area. As he began to turn, he saw a ground vehicle coming towards him from the left. He immediately applied heavy braking and full right pedal, but this action was inadequate. The vehicle operator noticed the aircraft at the last moment, and he also tried to avert a collision by turning sharply to the left. It appears that neither the pilot nor the vehicle driver was paying proper attention while manoeuvring towards the parking area.

83-Q30902

Piper PA-32

N4704S

DATE: 23 Dec 1983 1420 EST
OPERATION: Private Recreation
PLACE: Quebec Airport 46/48N 71/24W
LOCALE: Overrun area of snow-covered runway 9000' by 150' 243' asl
WEATHER: Wind SW 20G26 kt vis 12 in drifting snow cloud 2600' bkn temp 10°C
PILOT: Private
TOTAL HOURS: 1650 ALL TYPES 1100 ON TYPE
LAST 90 DAYS: 30 ALL TYPES 30 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj; pass: 3 uninj.
OCCURRENCE: While parked on the airport ramp the aircraft had been exposed to strong winds and heavy snow. After preheating, the pilot started and warmed up the engine then shut down to load his passengers. Re-starting the engine he taxied out and took off. Shortly after getting airborne the engine began to misfire and lose power. The pilot applied primer thinking it might be lack of fuel but was unable to maintain flight. The aircraft landed on snow-covered ground some 330' beyond the runway end. Subsequent inspection revealed that 75% of the air filter was blocked by ice. It was concluded that the accumulation of snow on the air filter during the storm had melted during pre-heating and then frozen on with the ingestion of cold air during engine start. Unfortunately the air filter is not visible during a pre-flight walkaround.

83-Q35002

Mitchell Wing B10 Ultralight

None

DATE: 27 Apr 1983 1650 EDT
OPERATION: Private training
PLACE: Limbour Que 45/31N 75/45W
LOCALE: Tree-covered hills
WEATHER: Wind SW 6 kt vis 15+ cloud 13000' broken temp 18°C
PILOT: Unlicensed
TOTAL HOURS: 500 ALL TYPES 20 ON TYPE
LAST 90 DAYS: 20 ALL TYPES 20 ON TYPE
DAMAGE: Destroyed
CASUALTIES: Crew: 2 serious
OCCURRENCE: Shortly after take-off, at a height of about 500 feet agl witnesses heard the power being reduced and saw the aircraft slowing down. It appeared to become laterally unstable, began to mush then went into a spin. Recovery was not possible because of the low altitude.

The pilot reported that his airspeed was about 45 mph when the spin developed; this airspeed is considered much too high since a standard Mitchell Wing B10 stalls at about 22 mph. It is suspected that the airspeed indicator was stuck thus giving an erroneous reading.

Technical examination disclosed no evidence of mechanical malfunction of the flight controls or engines.

83-Q35003

Atlas X-C Ultralight

None

DATE: 5 May 1983 1800 EDT
OPERATION: Private test
PLACE: Mansonville Arpt Que 45/02N 72/24W
LOCALE: Flat tree-bordered runway
WEATHER: Wind calm vis 15+ sky clear temp 15°C
PILOT: Student
TOTAL HOURS: 32 ALL TYPES 2 ON TYPE
LAST 90 DAYS: 12 ALL TYPES 2 ON TYPE

DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj.
OCCURRENCE: During a high speed taxi test and short hop over the runway, the aircraft inadvertently became airborne. The left wing dropped and the pilot, unable to correct, applied more power in an attempt to miss trees. The left wing struck a tall tree and spun the aircraft to the left. It then stalled and fell into some tree tops.

83-Q35004 **Lazair Ultralight** **None**

DATE: 19 May 1983 0630 EDT
OPERATION: Private recreation
PLACE: St Lazare Que 45/24N 74/08W
LOCALE: Dirt runway 2600' by 75' 175' asl
WEATHER: Wind SSE 4 kt vis 45 sky clear temp 8°C
PILOT: Private
TOTAL HOURS: 110 ALL TYPES 0 ON TYPE
LAST 90 DAYS: Unknown ALL TYPES 0 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 minor
OCCURRENCE: After take-off, at a height of about 75 feet, the pilot commenced a turn to the right. During the turn, the right engine stopped, so he immediately applied full power to the left engine. This aggravated the turn, he lost control, and the aircraft entered a spiral and turned through 300 degrees before the right wing struck the surface.

The engine was bench tested and found serviceable; however, it stopped twice as a result of plug fouling.

83-Q35005 **Sunburst C (Ultralight)** **None**

DATE: 22 May 1983 1750 ADT
OPERATION: Private recreation
PLACE: Fermont Que 52/40N 67/05W
LOCALE: Lake in mountainous terrain
WEATHER: Wind NE 5 kt vis 15 cloud 3000' broken
PILOT: Commercial
TOTAL HOURS: 2422 ALL TYPES 1 ON TYPE
LAST 90 DAYS: 177 ALL TYPES 1 ON TYPE
DAMAGE: Destroyed
CASUALTIES: Crew: 1 fatal
OCCURRENCE: After the aircraft commenced a turn to the left, it was observed to enter a spiral descent. The speed increased and both wings failed.

Examination of the control system revealed that the short control tube which was assembled below the joy stick control, was not connected at the forward threaded end. The evidence indicates that the control rod became disconnected in the air which would result in loss of pitch control. (LP 209/83)

83-Q35006

Lazair Ultralight

C-IAUH

DATE: 10 Jun 1983 0900 EDT
OPERATION: Private business
PLACE: Thirsty Boot Airstrip Que 45/10N 72/22W
LOCALE: Hill and tree-bordered strip
WEATHER: Wind E 9 kt vis 15+ sky clear temp 20°C
PILOT: Airline Transport (expired)
TOTAL HOURS: 29000 ALL TYPES 0 ON TYPE
LAST 90 DAYS: Unknown ALL TYPES 0 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj.
OCCURRENCE: During a high speed taxi run, the pilot attained too high an airspeed to permit a safe stop so he elected to fly. Initial climb performance appeared normal, but at about 50 feet, the rate of climb suddenly decreased. Unable to climb, the pilot made a forced landing into tall trees. It is suspected the decreased performance was due to subsidence.

The taxi runs were for pilot familiarization as he had not flown this type before.

83-Q35008

Lazair (Ultralight)

None

DATE: 3 Jul 1983 1840 EDT
OPERATION: Private training
PLACE: Bolton West Que 45/12N 72/28W
LOCALE: Dirt runway 1000' by 53'
WEATHER: Wind light vis 30 cloud 28000 broken temp 28°C
PILOT: Unlicenced
TOTAL HOURS: Unknown ALL TYPES 0 ON TYPE
LAST 90 DAYS: 2 ALL TYPES 0 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 serious
OCCURRENCE: Shortly after take-off, the aircraft commenced a tight turn to the left. Height was lost during the turn and the left wing struck trees. The pilot had never flown an ultralight or received any formal instruction on this type. It was not determined why he could not maintain altitude.

84-Q40002

Piper PA-E23-250

C-GKSR

DATE: 13 Jan 1984 1605 EST
OPERATION: Charter
PLACE: Salluit Que 62/13N 75/38W
LOCALE: Ice runway 4000'
WEATHER: Wind SE 10 kt sky obs with fog temp -1°C
PILOT: Airline Transport
TOTAL HOURS: 5750 ALL TYPES 550 ON TYPE
LAST 90 DAYS: 52 ALL TYPES 27 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj; pass: 5 uninj.
OCCURRENCE: The pilot had pre-planned his flight to arrive at the unlighted Arctic ice strip before dark. Various delays before departure and en-route, extended his scheduled time by 11/2 hours. His arrival time was 40 minutes after nightfall.

As he circled to visually inspect the landing area, villagers arrived with snowmobiles to mark and light the strip. He made his approach and landed past the first snowmobile on the assumption that they were lined up at the beginning of runway. At the halfway point of the landing roll, he realized that the strip was much shorter than expected. There was insufficient runway remaining to attempt a go-around, and the ice surface made it

impossible to stop in time. He attempted to steer the aircraft around an ice mound at the end but the aircraft skidded and collided with it.

After the accident, the pilot noticed that the snowmobiles were outlining the last half of the strip. The total length of the strip was about 4000 feet.

84-Q40003 **De Havilland DHC-2** **C-FMPT**

DATE: 18 Jan 1984 1130 AST
OPERATION: Charter
PLACE: Anticosti Island Que 49/35N 63/43W
LOCALE: Tree-bordered snow-covered road
WEATHER: Wind W 5 kt vis 25 sky clear temp U- D12°C
PILOT: Commercial
TOTAL HOURS: 2739 ALL TYPES 1075 ON TYPE
LAST 90 DAYS: 64 ALL TYPES 38 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 serious; pass: 3 serious.
OCCURRENCE: While on a wild-life survey the pilot decided to land his ski-equipped aircraft on a snow covered bush road offering little wing clearance on either side. He landed slightly left of center and travelled a short distance when the left wing contacted a small tree. He contacted other small trees and the aircraft started veering left so he decided to go around. As he applied full power and pulled back hard on the controls, the right ski impacted a snow covered knoll. The attitude changed abruptly and it is suspected that the tail contacted the knoll causing substantial damage which was further aggravated when the left horizontal stabilizer struck a small tree. The aircraft climbed to about 30' and flew for some 500' where it crashed into the brush and overturned.

84-Q40005 **Cessna 177B** **CF-SIN**

DATE: 29 Jan 1984 1100 EST
OPERATION: Private recreation
PLACE: Luskville Que 45/32N 76/01W
LOCALE: Snow-covered runway 1800' by 40' 285' asl
WEATHER: Wind NE 7kt vis 15 + cloud 10000' overcast temp -16°C
PILOT: Commercial
TOTAL HOURS: 960 ALL TYPES 840 ON TYPE
LAST 90 DAYS: 10 ALL TYPES 10 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj; pass: 2 uninj.
OCCURRENCE: The threshold had been displaced some 470 feet down the runway for the winter and snow had not been cleared from this area. Landing in partial whiteout conditions, the pilot was unable to discern between the cleared and uncleared portions of the runway and touched down about 360 feet short of the displaced threshold. The nose gear failed shortly after touchdown resulting in damage to the engine cover and firewall area of the aircraft.

84-Q40006 **Hughes 269A** **C-FRNZ**

DATE: 1 Feb 1984 0820 EST
OPERATION: Private recreation
PLACE: Ste Bernadette de Boileau Que 48/07N 70/49W
LOCALE: Hilly tree and snow-covered area
WEATHER: Wind W 6 kt vis 20 sky clear temp -24°C
PILOT: Commercial Rotorcraft
TOTAL HOURS: 2300 ALL TYPES 52 ON TYPE

LAST 90 DAYS: 33 ALL TYPES 33 ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 1 uninj.

OCCURRENCE: While flying over tree-covered hills at a low altitude and airspeed, the main rotor became disengaged from the engine. The pilot commenced an autorotation and tried to reach a small clearing, but he allowed his rotor rpm to decay and had little or no collective remaining to complete the landing; the helicopter landed hard, bounced and came to rest on its right side.

Technical examination revealed that the clutch lever was in the "disengage" position, and the bracket which would normally hold the lever in the "engage" position was deformed and worn. It is suspected that the degraded condition of the bracket permitted the lever to accidentally release.

QUEBEC AVIATION LTD.
CESSNA 152, C-GCJY
QUEBEC AIRPORT, QUEBEC
22 FEBRUARY 84

REPORT

NUMBER: 84-Q40009
LOCAL TIME: 1207 EST
OPERATION: Specialty Flying Training
DAMAGE: Substantial
PILOT LICENCE: Student

PILOT HOURS:	ALL TYPES	ON TYPE
TOTAL	21	21
LAST 90 DAYS	20	20

INJURIES:	FATAL	SERIOUS	MINOR/NONE
CREW	—	—	1
PASSENGERS	—	—	—

SUMMARY REPORT: The student pilot was carrying out a touch-and-go landing using full flap in a crosswind condition. The aircraft touched down hard in a nose down attitude, causing failure of the nose gear and subsequent damage to the propeller, engine mounts and firewall. The manufacturer advises against using full flap in crosswind landings.

CESSNA 180K, C-GBFT
ST. ANDRE AVELLIN, QUEBEC
9 MARCH 84

REPORT

NUMBER: Q40011
LOCAL TIME: 1120 EST
OPERATION: Private Training
DAMAGE: Substantial
PILOT LICENCE: Student Pilot

PILOT HOURS:	ALL TYPES	ON TYPE
TOTAL	71	65
LAST 90 DAYS	23	23

INJURIES:	FATAL	SERIOUS	MINOR/NONE
CREW	—	—	1
PASSENGERS	—	—	—

**SUMMARY
REPORT:**

The student pilot was returning to base after a solo practice flight. Flying conditions were excellent with visibility better than 15 miles.

As she descended through 3500 feet the engine failed and all attempts to restart were unsuccessful.

She declared an emergency and selected a stretch of highway for a forced landing. Just prior to touchdown, the right wing struck an electrical wire and then a telephone pole which caused substantial damage to the aircraft.

Investigation revealed that the fuel gauges were inaccurate; the left gauge read 38 lbs. and the right 54 lbs. when in fact no fuel remained. The fuel tanks had not been checked visually before departure.

The student's training record indicated that although she had received considerable dual instruction she had not been taught forced or precautionary landings.

82-W25010 **Birdman Atlas XC Ultralight** **None**

DATE: 18 Dec 1982 1300 MST
OPERATION: Private recreation
PLACE: 4 miles SE of Stettler Alt 52/16N 112/37W
LOCALE: Rolling cultivated area 2200' asl
WEATHER: Wind light vis 15+ sky clear temp 0°C
PILOT: Unlicensed
TOTAL HOURS: 23 ALL TYPES 23 ON TYPE
LAST 90 DAYS: 19 ALL TYPES 19 ON TYPE
DAMAGE: Destroyed
CASUALTIES: Crew: 1 fatal
OCCURRENCE: This ultralight aircraft crashed shortly after take off. The pilot had apparently turned back towards the take off point after experiencing some sort of difficulty. There were no eyewitnesses.

The ultralight impacted the ground in a steep nose down attitude. Examination determined that an inflight structural failure had occurred as a result of previous damage to the tail post and the bolts that held the tail unit to the rear wing spans. During the short flight the tail section rotated about the rear spar of the horizontal stabilizer resulting in an uncontrolled descent to impact.

The aircraft had been involved in a hard landing a week before this accident. It is possible that the previous damage to the tail occurred at that time (LP 5/83).

83-W30013 **Boeing A75N1** **C-GWCW**

DATE: 15 Jul 1983 0530 MDT
OPERATION: Specialty application
PLACE: 7 nm NW of Ponoka Alt 52/39N 113/41W
LOCALE: Pitch-bordered gravel road 2700' asl
WEATHER: Wind calm vis 15+ sky clear temp 13°C
PILOT: Senior Commercial
TOTAL HOURS: 22000 ALL TYPES 3000 ON TYPE
LAST 90 DAYS: 26 ALL TYPES 26 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj.
OCCURRENCE: After completing about twenty spraying swaths at an altitude of five feet, the pilot experienced a sudden severe vibration. An immediate pull-up was initiated, the load was dumped and the engine shut down. The pilot was too fast to land in the remainder of the field, so he turned 90 degrees left toward a gravel road. Although the touchdown

was good, he was unable to maintain directional control; the right wheel caught the ditch and the aircraft nosed over.

A large piece of one blade tip was missing, and the engine mount was broken because of the vibration. Laboratory examination of the blade indicated progressive cracking due to FOD, probably a stone strike. The area had been dressed; however, the process smeared material into the crack.

83-W30014

Cessna A185F

C-GPLX

DATE: 29 Apr 1983 1330 MDT
OPERATION: Specialty Inspection
PLACE: Whitecourt Arpt Alt 54/09N 115/47W
LOCALE: Gravel taxiway 1200' long 2567' asl
WEATHER: Wind WNW 6 kt vis 15+ cloud 28000 sct temp 13°C
PILOT: Commercial
TOTAL HOURS: 3700 ALL TYPES 2500 ON TYPE
LAST 90 DAYS: 90 ALL TYPES 80 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj; pass: 1 uninj.
OCCURRENCE: Since the runway was closed, the pilot decided to take off using the apron and taxiway. He performed a short field take-off using 20 degree flaps. After rolling about 200 feet, he raised the tail wheel; this is contradictory to the published procedure which calls for a three point tail low attitude at lift-off.

The aircraft became airborne about half-way down the estimated 1200 feet of available take-off distance. The subsequent climb angle was such that the aircraft failed to clear 40 to 50 foot trees; the machine struck the tree tops but the pilot was able to maintain control and land safely.

According to the flight manual and using the short field take-off procedure, the distance required to clear a 50 foot obstacle is 1200 feet. Prior to take-off, the pilot consulted this chart but erroneously computed the required distance as 850 feet.

83-W30025

Cessna A185F

C-GAMH

DATE: 13 Jun 1983 1640 MDT
OPERATION: Charter
PLACE: Inuvik NWT 68/18N 133/29W
LOCALE: Paved runway 6000' by 150' 224' asl
WEATHER: Wind SE 15 G 20 kt vis 15+ sky clear
PILOT: Airline Transport
TOTAL HOURS: 4200 ALL TYPES 2000 ON TYPE
LAST 90 DAYS: 200 ALL TYPES 120 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj.
OCCURRENCE: While taxiing in a cross-wind, control was lost and the aircraft ground looped to the left. Material analysis of the failed parts indicated the failure was due to overload. (LP 246/83)

DATE: 19 Jul 83 0755 MDT
OPERATION: Charter
PLACE: Junction Mountain Alt 50/40N 114/49W
LOCALE: Mountainous area 7200' asl
WEATHER: Wind SE less than 5 knots vis 15+ sky clear temp 15°C
PILOT: Commercial
TOTAL HOURS: 12000 ALL TYPES 3000 ON TYPE
LAST 90 DAYS: 200 ALL TYPES 20 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj; pass: 3 uninj.
OCCURRENCE: The pilot flew directly to a forestry tower. The first approach to the mountain pad was rejected due to excessive airspeed during the final landing stage. A second approach was made from a different direction. One hundred feet from the pad, at low airspeed and near zero rate of descent, the helicopter began to descend despite power application. He initiated a right turn with the intent of flying downslope to regain airspeed. The aircraft struck the ground, coming to rest upright with the tailboom buckled downward.

The helicopter was operating at a density altitude that would allow hovering in ground effect only. The pilot believed there was no wind; however, the slight wind recorded by the fire tower observer may have exposed the helicopter to a down wind condition. During final approach the near zero airspeed over sloping terrain would have precluded any ground effect advantage. Having failed to reach the pad, the right turn may have involved right pedal input which would (on this aircraft design) further degrade main rotor effectiveness. Having failed to get into ground effect over the level landing pad, the high density altitude at near zero airspeed prevented the pilot from maintaining height.

83-W30034

de Havilland DHC-3

C-FQOQ

DATE: 26 Jul 1983 2000 YDT
OPERATION: Commercial non-revenue
PLACE: Glacier Lake YT 64/54N 133/32W
LOCALE: Lake water area 5280' by 1200' 3200' asl
WEATHER: Wind NW 10 G 12 vis 15+ cloud scattered temp 20°C
PILOT: Commercial
TOTAL HOURS: 2800 ALL TYPES 1400 ON TYPE
LAST 90 DAYS: 220 ALL TYPES 200 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj; pass: 1 uninj.
OCCURRENCE: The pilot was attempting to land his float-equipped aircraft on a lake in a mountain valley. Approaching the lake downwind, he observed a rain shower at the far end and decided to land before the shower had moved over the lake. The narrowness of the valley precluded a 180 degree turn, so he tried to land with a tailwind.

While on final, approximately 40 feet above the lake surface, the aircraft began to sink and the pilot was unable to slow the descent despite an attempt to overshoot. The aircraft struck the water and bounced twice then the nose portion of the floats dug in. Afraid of nosing-over inverted, the pilot then applied right rudder to roll the aircraft onto a wing.

As a result of hitting the water, the right wing broke free and the floats separated from the fuselage. The pilot and his passenger were uninjured, and after clinging to floating wreckage, swam to shore.

During the final stage of the approach, the pilot was not monitoring his airspeed. It is evident that the airspeed was allowed to decrease until an unarrestable descent began. An increasing tailwind, or the impression of a normal ground speed given by the tailwind, would have led to the airspeed decrease. The decision to overshoot came too late to prevent the hard landing.

CALGARY FLIGHT TRAINING CENTRE
CESSNA 152, C-GMUH
SPRINGBANK AIRPORT, ALBERTA, 3/4 MI SE
27 JULY 1984

REPORT

NUMBER: 83-W30035
LOCAL TIME: 2111 MDT
OPERATION: Specialty Recreation
DAMAGE: Substantial
PILOT LICENCE: Private

PILOT HOURS:	ALL TYPES	ON TYPE
TOTAL	400	6
LAST 90 DAYS	25	6

INJURIES:	FATAL	SERIOUS	MINOR/NONE
CREW	—	—	1
PASSENGERS	—	—	1

SUMMARY REPORT: The pilot rented the aircraft for a local flight. On return to the airport the engine began to run roughly and then stopped. The aircraft was unable to reach a runway and a forced landing was carried out in a plowed field. During landing the aircraft nosed over and came to rest inverted.

The engine had stopped because of fuel exhaustion. Post accident draining of the fuel tanks revealed that they contained less than the manufacturer's specified unusable fuel.

It was reported that during the pre-flight checks, the fuel gauges showed 1/4 full on one tank and 1/3 full on the other. The tanks were not dipped to verify the gauges. It was planned that the flight would last only 30 minutes and it was felt that sufficient fuel was on board for the intended flight. The accident occurred 1 hour and 7 minutes after take-off.

83-W30038

Bell 206B

C-GSKC

DATE: 7 Aug 1983 1130 MDT
OPERATION: Aerial Control
PLACE: 1 nm S of Crowsnest Lake Alt 49/37N 114/38W
LOCALE: Lake water area 4280' asl
WEATHER: Wind SEE 20 kt vis 25+ sky clear temp 25°C
PILOT: Commercial

TOTAL HOURS:	6800	ALL TYPES	Unknown	ON TYPE
LAST 90 DAYS:	Unknown	ALL TYPES	Unknown	ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 fatal

OCCURRENCE: The pilot was simulating a fire-fighting operation using a sling and monsoon bucket. After a successful drop he returned to the lake for more water. Over the lake the monsoon bucket or sling struck a power cable strung across the lake. The helicopter was apparently brought to a sudden stop, and as a result, the main rotor blade severed the tail boom. The helicopter fell to the water and submerged inverted. Before he could be rescued, the pilot drowned.

There was no evidence of any component failure to prevent the successful continuation of the practice session. The wire strike was probably the result of the pilot's inadequate monitoring of helicopter's altitude. He was aware of the wires, in fact he had warned another pilot about them shortly before the accident.

83-W30040

Cessna 172B

C-FMUO

DATE: 15 Aug 1983 0600 MDT
OPERATION: Private recreation
PLACE: 4 mi W of Fort Nelson BC 58/50N 122/45W
LOCALE: Grass runway 2300' by 36' 1700' ASL
WEATHER: Wind W 4 kt vis 15+ sky clear temp 7°C
PILOT: Private and Commercial Rotorcraft
TOTAL HOURS: 281 ALL TYPES 80 ON TYPE
LAST 90 DAYS: 33 ALL TYPES 14 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj; pass: 1 uninj.
OCCURRENCE: On take-off, the aircraft did not accelerate as expected so the pilot aborted the attempt. To avoid logs and trucks obstructing the end of the strip, the aircraft was turned slightly off the runway; it ran into a shallow ditch with long wet grass and rocks. The nosewheel broke off and the aircraft came to rest inverted. The lack of acceleration was due to the pilot trying to get airborne at well below lift-off speed.

83-W30041

Bellanca 8GCBC

C-GPCK

DATE: 17 Aug 1983 1330 MDT
OPERATION: Private recreation
PLACE: Banff Alt 51/12N 115/32W
LOCALE: Grass runway 3000' by 190' 4583' ASL
WEATHER: Wind SW 5G20 kt vis 15+ cloud 7500' BKN temp 25°C
PILOT: Private
TOTAL HOURS: 850 ALL TYPES 200 ON TYPE
LAST 90 DAYS: 69 ALL TYPES 69 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj;
OCCURRENCE: The aircraft was en-route from Revelstoke to Springbank on a VFR flight plan. The pilot had intended to carry on to destination, but when over Banff, he decided to land.

He descended to circuit height and inspected the field before deciding to land on runway 18. The pilot had noted the caution in the VFR supplement concerning possible wind conditions (turbulence and subsidence) that might be expected at Banff; therefore, he planned the approach at a higher airspeed than normal using only half flap. Just before touchdown, well down the runway, the aircraft floated and the pilot reported that a sudden gust of wind drifted it to the left; the machine landed hard then bounced. The pilot applied full power, but the engine hesitated before responding. During the bounce and the application of power, the pilot lost directional control and veered 45 degrees off the runway heading.

Since the aircraft was nose-high, and at low airspeed, it was unable to accelerate or climb. Drifting across a field, it narrowly missed hitting a person. After crossing a highway, the pilot decided to land. He closed the throttle and the aircraft landed heavily collapsing the right main gear.

83-W30042

Stinson 108-3

C-GXTI

DATE: 20 Aug 1983 1020 MDT
OPERATION: Private recreation
PLACE: 15 mi E of High Prairie Alt 55/05N 116/03W
LOCALE: Flat grass-covered field
WEATHER: Wind WSW 13 kt vis 15+ cloud 6500 SSCT
PILOT: Private
TOTAL HOURS: 500 ALL TYPES 300 ON TYPE
LAST 90 DAYS: 45 ALL TYPES 43 ON TYPE

DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj.
OCCURRENCE: While in cruise flight the engine failed. During the down wind forced landing attempt, the aircraft entered long grass and came to rest inverted.

Number five cylinder fractured next to and through the cylinder flange (possibly from fatigue). The initiation of these fractures appeared to be associated with the fillet on the outside diameter of the stud hold-down washer spot face area.

Franklin Service Bulletin FSB 98 recommends carrying out a visual inspection of cylinder mounting flanges at the stud hold-down washer spot face surfaces to detect cylinder hold-down washers which may not be seating correctly. If they do not seat properly, the stresses on the cylinder flange may cause failure. (LP 400/83).

83-W30043

Piper PA18A-150

C-FKLT

DATE: 23 Aug 83 1400 MDT
OPERATION: Private recreation
PLACE: Muncho Lake BC 59/03N 125/45W
LOCALE: Highway in hilly area 2680' asl
WEATHER: Wind ESE 20 kt vis 15+ sky clear
PILOT: Private
TOTAL HOURS: 1128 ALL TYPES 800 ON TYPE
LAST 90 DAYS: 181 ALL TYPES 142 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj; pass: 1 uninj.
OCCURRENCE: The pilot was attempting to land on an upslope section of the Alaska Highway in strong gusting winds. During roll-out, directional control was lost; the aircraft struck two posts which severely damaged both wings. The pilot believed the passenger had applied wheel brake to one side causing the loss of control. The pilot failed to remove, or render inoperative, the controls in the passenger position before flight.

YUKON AIRWAYS LTD.
HILLER UHIZE, C-FOKQ
KLUKSHU VILLAGE, YUKON 5 MI SW
28 AUGUST 1983

REPORT
NUMBER: 83-W30045
LOCAL TIME: 0900 YST
OPERATION: Charter
DAMAGE: Destroyed
PILOT LICENCE: Senior Commercial

PILOT HOURS:	ALL TYPES	ON TYPE
TOTAL	2060	700
LAST 90 DAYS	175	160

INJURIES:	FATAL	SERIOUS	MINOR/NONE
CREW	—	—	1
PASSENGERS	1	—	1

SUMMARY REPORT: The pilot attempted to unload a passenger while hovering, with the skid just touching the side of a steeply sloped hill. The main rotor struck the side of the hill and the helicopter slid down the hill and burned. The passenger was thrown clear when the blades struck the ground. The pilot was able to exit the aircraft quickly, with assistance, when it came to rest.

The pilot felt he initially had 2 or 3 feet rotor clearance, but then diverted his attention from the rotor to skid position to ensure safe passenger deplaning. At that point the rotor blades struck the hillside.

Investigation revealed that with a skid touching a hill, the maximum slope to provide zero rotor blade clearance is 40 deg. The slope at the accident site was approximately 35 to 40 degrees because of outcroppings.

83-W30046

Bell 206B

C-GNMO

DATE: 30 Aug 1983 0830 YST
OPERATION: Specialty survey
PLACE: MacMillan Pass YT 63/16N 130/10W
LOCALE: Mountainous area 4100' asl
WEATHER: Wind W 10 G 20 kt vis 20 cloud scattered temp 10°C
PILOT: Commercial rotorcraft
TOTAL HOURS: 2500 ALL TYPES 1500 ON TYPE
LAST 90 DAYS: 150 ALL TYPES 70 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj; pass: 1 uninj.
OCCURRENCE: The pilot was flying in mountainous terrain. After toeing in on a rocky incline and off-loading two passengers, he prepared to depart. The pilot reported that at about 2 feet above the terrain, he started a right turn out. He felt the machine lean to the right as the right bear paw hooked onto a rock. He applied left cyclic and the bear paw then broke loose; the pilot was unable to control the aircraft as it rolled to the left. Winds were gusting heavily at the time of the occurrence.

83-W30047

Hughes 500D

C-GYAJ

DATE: 30 Aug 1983 1215 YST
OPERATION: Charter
PLACE: 3 mi W of Con-West Airstrip YT 62/46N 135/10W
LOCALE: Lake water area 2200' asl
WEATHER: Wind calm vis 15 + sky clear temp 15°C
PILOT: Commercial Rotorcraft
TOTAL HOURS: 2100 ALL TYPES 1200 ON TYPE
LAST 90 DAYS: 200 ALL TYPES 200 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj.
OCCURRENCE: The pilot was on a ferry flight for a pick-up at a drill site with a 24 foot line suspended from a hook. Enroute, the line whipped up into the tail rotor and tore out the rotor and gear box. The helicopter made 3 or 4 turns before landing in a slough.

The pilot likely snagged the line on a tree on a ridge. He may have been suffering from carbon monoxide poisoning as his tent-mate used an unvented kerosene heater at night. Fatigue and complacency may also have been added factors - other pilots noted he had complained about not feeling well.

PA 18-150, C-GVCQ
 TWITYA RIVER, NWT
 02 SEPTEMBER 1983

REPORT

NUMBER: 83-W30048
LOCAL TIME: 1100 MST
OPERATION: Private Company Business
DAMAGE: Substantial
PILOT LICENCE: Private

PILOT HOURS:	ALL TYPES	ON TYPE
TOTAL	200	150
LAST 90 DAYS	130	100

INJURIES:	FATAL	SERIOUS	MINOR/NONE
CREW	—	1	—
PASSENGERS	—	1	—

SUMMARY REPORT: The pilot and passenger were conducting a low level aerial search for a lost horse. During a turn the aircraft contacted trees and crashed in dense forest.

The search was being conducted at 200 feet above ground level at an approximate indicated airspeed of 45 knots. The passenger spotted something among the trees and the pilot banked the aircraft to get a better look at what was seen. The pilot reported that the airplane stalled in the turn and he was unable to recover before hitting the trees.

83-W30049

Bell 47G3B2

C-FQJY

DATE: 10 Sep 1983 2030 PDT
OPERATION: Charter
PLACE: Zama Lake Alt 58/46N 119/00W
LOCALE: Flat meadow area 1100' asl
WEATHER: Wind calm vis 15+ sky clear temp 9°C
PILOT: Commercial Rotorcraft

TOTAL HOURS:	400	ALL TYPES	400	ON TYPE
LAST 90 DAYS:	250	ALL TYPES	250	ON TYPE

DAMAGE: Substantial

CASUALTIES: Crew: 1 uninj; pass: 1 uninj.

OCCURRENCE: While transiting at about 500 feet above ground, the helicopter suddenly lost engine power. The pilot opened the throttle, received no response, and commenced an autorotation. The helicopter landed heavily in tall grass and the main rotor sliced off the tail boom.

The throttle linkage between the cambox and the carburettor had separated causing the loss of engine power. As a result of the initiation of autorotation at low altitude, the pilot was unable to completely eliminate the helicopter's forward speed.

83-W30050

Piper PA24-250

C-FMNN

DATE: 19 Sep 1983 1400 MDT
OPERATION: Private business
PLACE: Taber Alt 49/50N 112/11W
LOCALE: Gravel runway 2000' by 75' 2640' asl
WEATHER: Wind NW 20 kt vis 15+ cloud 7000 broken temp 5°C
PILOT: Private

TOTAL HOURS:	600	ALL TYPES	130	ON TYPE
LAST 90 DAYS:	50	ALL TYPES	50	ON TYPE

DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj; pass: 1 uninj.
OCCURRENCE: The pilot was returning from the U.S. and cleared customs at Lethbridge. Before departure, he checked the NOTAM file, and found nothing to indicate that Taber was closed. On arrival over the field, he circled twice to ensure that the runway was open, called on UNICOM without getting a response, broadcasted his intentions, and landed on runway 31. He observed construction equipment while circling, but it moved clear as if to make way for his landing. On the roll after touchdown, the aircraft was damaged when it dropped into an excavation at the intersection with runway 05/23. The pilot was able to taxi to the ramp.

Work had been in progress for several weeks rebuilding the main runway, 05/23. During this period, runway 13/31 was open most of the time. When it was necessary to close runway 13/31, the excavating crew foreman informed the airport manager, who ensured that a NOTAM was issued and that white Xs were placed at each end. This crew had not excavated the intersection. On the day of the accident, the paving crew started work. They immediately graded the intersection down to the level of the rest of the runway, leaving a four to six inch ditch across runway 13/31. The crew foreman did not inform the airport manager, and so there was no NOTAM and no runway marking. The airport manager was not in his office when the pilot called on UNICOM. The accident happened so soon after the arrival of the paving crew, that no lines of communication had been opened with the airport manager. The pilot was aware that work was underway, and took every precaution possible before landing.

83-W30051

Stinson HW75

C-FBZL

DATE: 24 Sep 1983 1111 MDT
OPERATION: Private ferry
PLACE: 1 mi NW of Fickle Lake Alt 53/28N 116/52W
LOCALE: Flat swampy area 3475' asl
WEATHER: Wind W 5 kt vis 25+ sky clear temp 15°C
PILOT: Private
TOTAL HOURS: 1500 ALL TYPES 30 ON TYPE
LAST 90 DAYS: 4 ALL TYPES 4 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj.
OCCURRENCE: The newly-renovated Stinson was being ferried through the Yellowhead Pass to be sold. While in level cruise flight the engine suddenly stopped and would not restart. The pilot landed in an open swamp area and the aircraft overturned when the main gear dug into the tall grass.

Although the engineer/pilot had signed an application for a C of A the day before, numerous mechanical discrepancies were evident. Investigation indicated that the engine failed due to fuel exhaustion. The unserviceable tachometer, fuel gauge, mixture control and carburettor made it impossible for the pilot to judge fuel consumption.

83-W30053

Hughes 500D

C-GKHR

DATE: 1 Oct 1983 1205 MDT
OPERATION: Charter
PLACE: 20 nm S of Rainbow Lake Alt 58/15N 119/15W
LOCALE: Flat grass-covered cut line 1700' asl
WEATHER: Wind WSW 5 kt vis 15+ cloud 9000' broken temp 9°C
PILOT: Commercial Rotorcraft
TOTAL HOURS: 3326 ALL TYPES 1057 ON TYPE
LAST 90 DAYS: 200 ALL TYPES 70 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 minor

OCCURRENCE: While lifting a load suspended on a cable, the engine failed. An autorotation was attempted onto a cut line but the landing was heavy and the helicopter rolled onto its side.

Several technical investigations determined that the compressor was not free to rotate due to the combustion liner sitting incorrectly on the first stage nozzle shield. This caused extensive internal damage to the engine. The combustion liner was incorrectly placed during the installation of an overhauled turbine about 220 flight hours previously.

83-W30054

Stinson 108-1

C-FYIH

DATE: 3 Oct 1983 1340 MST
OPERATION: Private business
PLACE: Beaton River BC 57/23N 121/23W
LOCALE: Gravel strip 5500' long 2743' asl
WEATHER: Vis 15+ sky clear
PILOT: Private
TOTAL HOURS: 352 ALL TYPES 89 ON TYPE
LAST 90 DAYS: 10 ALL TYPES 10 ON TYPE
DAMAGE: Destroyed
CASUALTIES: Crew: 1 uninj.
OCCURRENCE: The pilot stated that the engine began to run rough during cruise so he landed on an abandoned airstrip.

He drained the sumps and filter then started the engine. At this point, fire broke out in the engine compartment, and the fire extinguisher was used to put it out. By this time, the fire had spread into the cabin but the pilot had run out of extinguishant.

The aircraft was destroyed. The reason the fire started could not be determined.

83-W30056

Cessna U206

C-FXJW

DATE: 7 Oct 1983 1520 MDT
OPERATION: Private recreation
PLACE: 60 mi N of Athabasca Alt 55/40N 112/46W
LOCALE: River water area in hills 1500' asl
WEATHER: Wind NW 25 kt vis 15+ cloud 7000' scattered temp -6°C
PILOT: Airline Transport
TOTAL HOURS: 14000 ALL TYPES 400 ON TYPE
LAST 90 DAYS: 140 ALL TYPES 5 ON TYPE
DAMAGE: Destroyed
CASUALTIES: Crew: 1 uninj.
OCCURRENCE: In normal cruise at 5500 feet msl the pilot detected a burning smell then smoke began to fill the cockpit. He closed the cabin heater and air vent and opened the wing root fresh air vents. The float-equipped aircraft was landed on a river. The pilot used the fire extinguisher in an attempt to put out the fire which was confined to the engine compartment. As he was scooping water onto the fire, the flames became so intense he had to abandon the aircraft.

The source of the fire was traced to a "B" nut on a fuel line in the oil dilution system. The nut had backed off allowing fuel to leak onto the exhaust stack and ignite.

83-W30057

Piper PA28-180

C-GXBM

DATE: 8 Oct 1983 2230 MDT**OPERATION:** Private training**PLACE:** 1 nm NE of Jasper/Hinton Arpt Alt 53/21N 117/44W**LOCALE:** Tree-covered hills 4175' asl**WEATHER:** Wind SSW 5 kt vis 25 cloud 8000' SCT temp 5°C**PILOT:** Commercial**TOTAL HOURS:** 1700 ALL TYPES 200 ON TYPE**LAST 90 DAYS:** 100 ALL TYPES 20 ON TYPE**DAMAGE:** Substantial**CASUALTIES:** Crew: 2 serious.

OCCURRENCE: During a training flight at night, the pilot was approaching an upslope runway. Approximately one mile from the end of the runway, he selected the landing lights on to aid in seeing an unlit windsock. Almost immediately he noticed trees directly ahead, and before a climb could be initiated, the aircraft collided with them. The aircraft struck the ground inverted.

The runway upslope and the pilot's decision to illuminate the windsock, may have resulted in a descent into terrain.

83-W30059

Cessna A185F

C-GGHQ

DATE: 16 Oct 1983 1400 MDT**OPERATION:** Charter**PLACE:** Fort McMurray Alt 56/39N 111/13W**LOCALE:** Gravel roadway 675' long 1000' asl**WEATHER:** Wind calm vis 15+ sky clear temp 3°C**PILOT:** Commercial**TOTAL HOURS:** 3000 ALL TYPES 2000 ON TYPE**LAST 90 DAYS:** 200 ALL TYPES 200 ON TYPE**DAMAGE:** Substantial**CASUALTIES:** Crew: 1 uninj.

OCCURRENCE: Shortly after take-off, the engine failed. The pilot landed on a cement plant roadway tearing off the right gear, finally standing the aircraft on its nose and wing tip.

Teardown indicated that the engine seized due to oil starvation of all main, and connecting rod bearings. It could not be determined why the starvation occurred.

83-W30063

Piper PA18A-135

C-FFFP

DATE: 28 Oct 1983 1330 YST**OPERATION:** Private business**PLACE:** 45 mi N of Dawson City YT 64/37N 139/28W**LOCALE:** Snow-covered strip**WEATHER:** Wind calm vis 15+ sky clear temp 4°C**PILOT:** Private**TOTAL HOURS:** 320 ALL TYPES 280 ON TYPE**LAST 90 DAYS:** 20 ALL TYPES 20 ON TYPE**DAMAGE:** Substantial**CASUALTIES:** Crew: 1 uninj.

OCCURRENCE: Before take-off, the pilot installed winterization covers on the aircraft. Enroute, a temperature inversion was encountered and the engine began to overheat. The pilot decided to make a precautionary landing and remove the cover. A landing was carried out on an unmaintained airstrip covered with 8-10 inches of snow. On touchdown, the main wheels broke through the snow crust and the aircraft nosed over and came to rest inverted.

During the flight, the temperature increased about 20 degrees. When the pilot noticed that the engine temperature was rising above normal he could have landed on the unmaintained snow-covered airstrip, or returned to base where temperatures were colder.

83-W30064

Cessna 170A

CF-ESY

DATE: 11 Dec 1983 1430 MST
OPERATION: Private training
PLACE: Summit Lake Alt 53/33N 117/05W
LOCALE: Frozen lake surface 3400' asl
WEATHER: Wind calm vis 15+ sky clear temp 0°C
PILOT: Private
TOTAL HOURS: 400 ALL TYPES 350 ON TYPE
LAST 90 DAYS: 20 ALL TYPES 20 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj.
OCCURRENCE: The pilot landed the wheel-equipped aircraft on a snow-covered lake to practice circuits. After checking the snow depth, the pilot started to taxi to his take-off position when the aircraft suddenly nosed over and came to rest inverted.

While taxiing, 1500 rpm was used to keep the aircraft moving through the 5 inches of snow on the lake. Unknown to the pilot, a portion of the surface was covered with flood water which had a thin layer of ice and snow. As the aircraft taxied onto the thin ice, the main wheels broke through, and the aircraft nosed over.

83-W30067

Cessna 172H

C-FYGJ

DATE: 26 Dec 1983 1500 PST
OPERATION: Private recreation
PLACE: Chetwynd BC 55/41N 121/38W
LOCALE: Snow-covered hills 2000' asl
WEATHER: Wind SW 3 kt vis 25 cloud 4000' scattered temp-10°C
PILOT: Private
TOTAL HOURS: 525 ALL TYPES 321 ON TYPE
LAST 90 DAYS: 27 ALL TYPES 27 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj.; pass: 1 uninj.
OCCURRENCE: The pilot reported that he descended from 7500 feet to his approach path for the intended landing. The descent of over 4500 feet took 6 minutes with power settings of less than 20 inches manifold pressure and at times the throttle was at idle. Full carburetor heat was applied throughout the descent. One mile back from the runway the pilot applied power to slow the descent and make a powered approach to the landing. The engine failed to respond and the pilot was forced to pick an alternate landing site as he was too far back to make the runway without power. During the forced approach to a small field the aircraft passed through some tree tops and under power lines before skidding to a stop.

In all probability the prolonged descent at low engine power allowed the engine to cool to the point where it was too cold to immediately respond to power application. The engine would also cool to the point where insufficient heat was generated thus rendering the carburetor heat selection ineffective had carburetor icing been a problem.

83-W30068

Cessna A185E

C-FZEL

DATE: 27 Dec 1983 1630 MST
OPERATION: Private business
PLACE: 7 mi W of Fort St John BC 56/15N 120/47W
LOCALE: Flat snow-covered field 5000' by 4000' 2100' asl
WEATHER: Wind WNW 10 kt vis 25 sky clear temp -18°C
PILOT: Private
TOTAL HOURS: 9000 ALL TYPES 1500 ON TYPE
LAST 90 DAYS: 12 ALL TYPES 12 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj.
OCCURRENCE: The pilot was on his first ski trip of the season. After a short local flight, he returned to the snow-covered farm field for landing; it was about 10 minutes before sunset. He elected to land with a 10 knot crosswind from the left to save taxiing time. As he crossed the fence, he lost depth perception due to the expanse of snow, and tried to judge his height by looking out the left side window. The aircraft was drifting right; it bounced, and on the second touchdown, the pilot looked forward and saw a granary directly ahead. He was unable to avoid it, and the right wing was damaged on impact.

83-W30069

Bellanca 7ECA

C-GSIG

DATE: 31 Dec 1983 1635 MST
OPERATION: Private-recreation
PLACE: 9 nm NE of Rocky Mountain House Alt 52/33N 114/47W
LOCALE: Farm field 2100' long 3500' asl
WEATHER: Wind calm vis 40+ cloud 7000' broken temp 0°C
PILOT: Private
TOTAL HOURS: 157 ALL TYPES 92 ON TYPE
LAST 90 DAYS: 10 ALL TYPES 10 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj; pass: 1 uninj.
OCCURRENCE: The pilot of the ski-plane was attempting to take off from a 2100 foot unprepared field covered with 2-6 inches of loose snow. On the first attempt the aircraft would not accelerate beyond 40 mph so the strip was levelled and the snow was packed. Although during the second take-off run, the aircraft would not accelerate beyond 45 mph, the pilot continued. By the time the pilot realized he would have difficulty getting airborne and clearing obstacles at the end of the strip, it was too late to stop safely. With about 75 feet of runway remaining, the aircraft became airborne. The skis struck a barbed wire fence and as the aircraft continued, it struck the roof of a shed and then landed heavily.

No mechanical defects were found that could have contributed to loss of performance but the 3500 foot strip elevation would have affected available engine power. Because of limited experience on type, the pilot may not have appreciated the increase in take-off distance required when operating on skis.

83-W30905

Cessna 206 (Amphib. floats)

N5416X

DATE: 30 Aug 1983 1245 PDT
OPERATION: Private recreation
PLACE: Gladstone Creek YT 61/22N 138/07W
LOCALE: Rocky mountainous region 6000' asl
WEATHER: Wind W 9 kt vis 15+ sky clear temp 12°C
PILOT: Private
TOTAL HOURS: 5000 ALL TYPES 3500 ON TYPE
LAST 90 DAYS: 100 ALL TYPES 100 ON TYPE

DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj; pass: 1 minor, 1 uninj.
OCCURRENCE: After take-off, the pilot made a 360 degree turn to gain altitude before attempting to cross a 7000 foot ridge. As he climbed up a draw between two mountains, the aircraft began to vibrate, and the pilot felt that he was losing power. He established a nose high attitude and pancaked the aircraft on the side of the mountain at the 6000 foot level.

The technical examination revealed that three cylinders had low compression with leaking valves and stuck rings. The spark plugs were badly worn and gapped very wide; to some degree, this would result in a power loss.

The maximum rate of climb for the aircraft at 6000 feet is 730 feet per minute. Calculations indicated that the maximum angle of climb possible was 5.37 degrees. The slope of the mountain was 9 degrees.

83-W30906

Cessna 180H

N3493Y

DATE: 12 Sep 1983 1730 PDT
OPERATION: Private recreation
PLACE: 68 nm SE of Ft Nelson BC 57/46N 122/15W
LOCALE: Dirt strip 5000' by 150' 2200' asl
WEATHER: Wind calm vis 15+ cloud 9000' broken temp 15°C
PILOT: Airline Transport
TOTAL HOURS: 3200 ALL TYPES 1500 ON TYPE
LAST 90 DAYS: 60 ALL TYPES 60 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 uninj.
OCCURRENCE: An experienced pilot departed Prince George for Watson Lake despite the threat of marginal VFR conditions further up the Trench. Enroute, he diverted eastward toward Fort Nelson due to deteriorating weather and chose an abandoned strip as a stopover.

He overflew the strip several times but as he was unfamiliar with this type of terrain, he did not recognize the areas of soft muskeg. The aircraft nosed over shortly after landing.

The pilot had decided not to file a flight plan, so he would be free to take an alternate route. As a result, there was no search and it took him nine arduous days to get to a distant town. In any case, the ELT did not function; the battery pack was depleted. Fortunately, he had a supply of food and camping equipment.

83-W35009

Quicksilver MX (ultra-light)

C-IARG

DATE: 15 May 1983 1315 MDT
OPERATION: Private business
PLACE: Edmonton Alt 53/34N 113/42W
LOCALE: Grass-covered area 2200' asl
WEATHER: Wind calm vis 15+ cloud 7000' scattered temp 5°C
PILOT: Unlicensed
TOTAL HOURS: 160 ALL TYPES 10 ON TYPE
LAST 90 DAYS: 10 ALL TYPES 10 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 minor
OCCURRENCE: While flying low over an open field, the pilot of the ultralight flew into one of two small powerlines bordering the road. Although he claimed to have had an engine failure, investigators successfully ground ran the engine after the occurrence, and could find no abnormalities with either it or the fuel system. The pilot was unlicensed and had only ten hours experience on type. He informed the aircraft rental company that he had a

private pilot licence and 150 hours light aircraft experience but no record of such a licence could be found. Investigators concluded that the wire strike was the result of the pilot's failure to see the powerlines until it was too late.

83-W35013

Atlas (ultra-light)

C-IBSP

DATE: 9 Jul 1983 1300 MDT
OPERATION: Private recreation
PLACE: 11 mi W of Stoney Plain Overpass Alt 53/34N 114/09W
LOCALE: Rolling tree-covered area 2200' asl
WEATHER: Wind WSW 20 gusty vis 15+ sky clear temp 14°C
PILOT: Unlicensed
TOTAL HOURS: 33 ALL TYPES 33 ON TYPE
LAST 90 DAYS: 25 ALL TYPES 25 ON TYPE
DAMAGE: Substantial
CASUALTIES: Crew: 1 serious
OCCURRENCE: In spite of advice to the contrary, the pilot insisted on flying in windy, turbulent conditions to the fly in. He was seen moving slowly in a strong headwind at a very low altitude just before he hit the trees. He claimed he experienced a power fade and lost altitude before the engine recovered.

Engine stoppages and momentary power losses are common occurrences in ultra-lights. If there had been less wind, he could have easily glided into an open field.

83-35009

Rally 2B Ultralight

C-ICXB

DATE: 7 Aug 1983 2005 EDT
OPERATION: Private recreation
PLACE: Sault Ste Marie Ont 46/30N 84/21W
LOCALE: Grass runway
WEATHER: Wind WSW 11 kt vis 15 cloud 15000 scattered temp 26°C
PILOT: Student
TOTAL HOURS: 12 ALL TYPES 12 ON TYPE
LAST 90 DAYS: 12 ALL TYPES 12 ON TYPE
DAMAGE: Destroyed
CASUALTIES: Crew: 1 minor
OCCURRENCE: Following a short relocation flight, the pilot attempted a landing, under a 90 degree right cross-wind condition. Ten feet above the runway, at an airspeed suitable to avoid a stall, a gust suddenly lifted the right wing. This initiated a left turn from which the pilot failed to recover. The left wing tip touched the ground, cartwheeling the aircraft onto its tail, and collapsing the ultralight's primary structure.

The pilot was unable to compensate for wind conditions he encountered during the landing.

PIPER PA23-250, CF-FGA
Timmins Airport, 4 mi SE, Ontario
4 AUGUST 1982

REPORT
NUMBER: 82-O20073
LOCAL TIME: 1014 EDT
OPERATION: Specialty Control
DAMAGE: Destroyed
PILOT LICENCE: Airline Transport

PILOT HOURS:	ALL TYPES	ON TYPE	
TOTAL	16000	17	
LAST 90 DAYS	104	104	
INJURIES:	FATAL	SERIOUS	MINOR/NONE
CREW	1	—	—
PASSENGERS	2	—	—

**SUMMARY
REPORT:**

The twin-engine aircraft departed on a 66 nm VFR flight from Timmins to Kapuskasing. The solo pilot did not file a flight plan or a flight notification, nor did he receive a current weather briefing before departure. Due to poor weather conditions en-route, the pilot obtained an IFR clearance before landing safely at Kapuskasing. The pilot's IFR rating had expired 4 days previously.

During the 34 minutes the aircraft was on the ground at Kapuskasing, the pilot checked the weather, filed an IFR flight plan back to Timmins, had his aircraft refuelled, and boarded two passengers.

Approximately 24 minutes after taking off from Kapuskasing, the pilot contacted air traffic control, confirming that the aircraft was at its assigned cruising altitude of 7000 feet. The pilot estimated the aircraft would be over Timmins in 10 minutes and the controller cleared him to maintain 4000 feet. The pilot reported over the Timmins VOR 8 minutes earlier than estimated and did not report the aircraft altitude. The controller cleared the aircraft for a VOR instrument approach procedure to runway 03 at Timmins Airport. The pilot acknowledged his clearance. Two minutes later the pilot contacted the controller requesting confirmation of the type of approach he was to perform. The same clearance was again given and the pilot acknowledged it.

The aircraft descended in cloud several miles east of the protected area assigned for the VOR approach. Four minutes after the pilot had reported over the Timmins VOR, the aircraft was observed in a 30° dive descending rapidly in a southerly direction out of clouds based at 1200 feet above ground. With parts of the right wing trailing behind it, the aircraft momentarily decreased its angle of descent; at this time, more of the right wing and cabin door separated from the aircraft. The angle of descent increased and the inverted aircraft disintegrated when it impacted trees, then ground, approximately 4 miles southeast of the Timmins Airport.

Evidence indicates that right aileron was applied while the aircraft was descending at high speed. This caused wing distortion and the right aileron broke at an altitude of about 4000 feet. Progressive disintegration of the right wing followed immediately. Prior to the main wreckage striking the ground, the right engine and propeller separated from the aircraft, falling to the ground some distance from the main impact location. Examination of the aircraft wreckage, engines and propellers did not reveal any evidence of pre-occurrence malfunction.

Note:

This report supersedes one published in issue 2/84 of the Synopses of Aircraft accidents — civil aircraft in Canada.

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